Harvard Medical Alumni Bulletin

Jan. / Feb. 1975

We know Librium works. (chlordiazepoxide HCl)

Value of continuing animal research

Clinical knowledge of Librium is extensive, yet its pharmacology and therapeutic action remain under continuing study. Data from animal experiments have been presented here for their intrinsic interest and because such findings often provide direction to new research, both experimental and clinical. *However, conclusions from such studies may not always be extrapolated to humans.*

Is the limbic system the "Librium system"? (chlordiazepoxide HCl)

A great deal of experimentation on various animal species suggests that the limbic system is the principal site of action of Librium. Thus, in freely moving cats with electrodes implanted in the brain, Librium 5 mg/kg i.p. slowed electrical activity in the hippocampus, amygdala and septal areas but not in the neocortex which was significantly affected only at higher doses.[1,2] Current investigations on monkeys,[3,4] however, indicate that other subcortical structures may be implicated in the effect of Librium. Other investigators, through electrophysiologic studies[5] in intact, conscious cats and monkeys, have demonstrated that chlordiazepoxide activates structures involved in the rewarding system—the preoptic area, lateral hypothalamus, septal region and hippocampal formation. At the same time, it appears to *inhibit* structures implicated in aversive behavior—the thalamic nuclei of the diencephalon and the midbrain reticular formation (MRF).

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3. Delgado JMR, Bracchitta H, Snyder DR: Psychoactive Drugs and Radio-Controlled Behavior. Film presented at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-6, 1971
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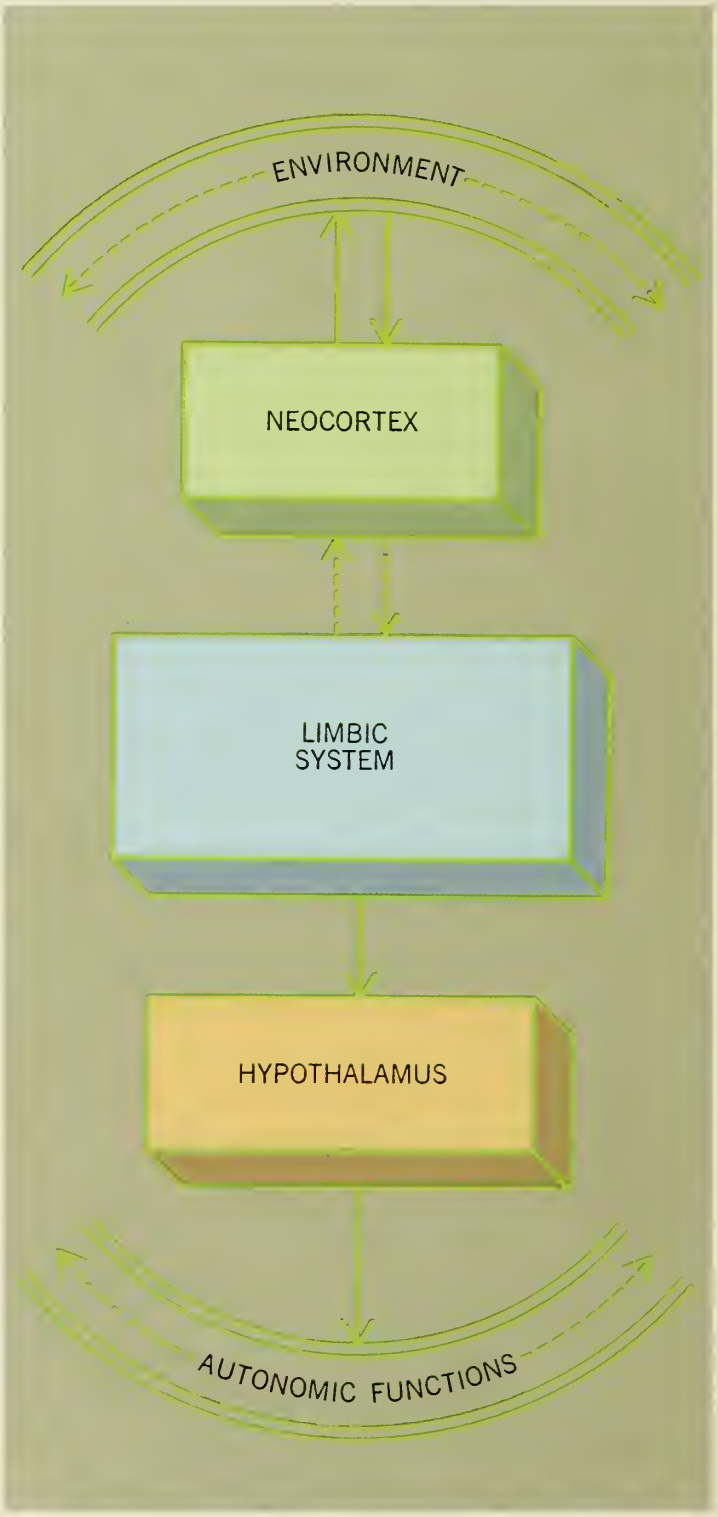

Schema demonstrating hypothetical pathways of emotional activity and its related expression in laboratory animals

We're still learning more about how and why.

Clinical significance of excessive anxiety

Anxiety, when inappropriate and immoderate, may not only have adverse psychologic effects but may also cause various somatic disturbances. Reduction of excessive anxiety thus contributes to relief of anxiety-linked emotional and physical disorders.

Antianxiety action of Librium

The dependable action of Librium has been demonstrated in the relief of excessive anxiety and tension occurring alone or in association with functional and organic disorders—usually without adversely affecting performance. Librium is often used concomitantly, when anxiety is a contributing or complicating factor, with certain specific medications of other classes of drugs, *e.g.*, cardiac glycosides, diuretics and antihypertensives.

Adjunctive use of Librium is recommended when counseling, reassurance or other nonpharmacologic measures alone are not considered sufficiently effective. When anxiety has been reduced to manageable levels, therapy with Librium should be discontinued.

ROCHE

Librium®
(chlordiazepoxide HCl)

5 mg, 10 mg, 25 mg capsules

We're still learning more about Librium to make it more useful to you.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Supplied: Librium® Capsules containing 5 mg, 10 mg or 25 mg chlordiazepoxide HCl. Libritabs® Tablets containing 5 mg, 10 mg or 25 mg chlordiazepoxide.

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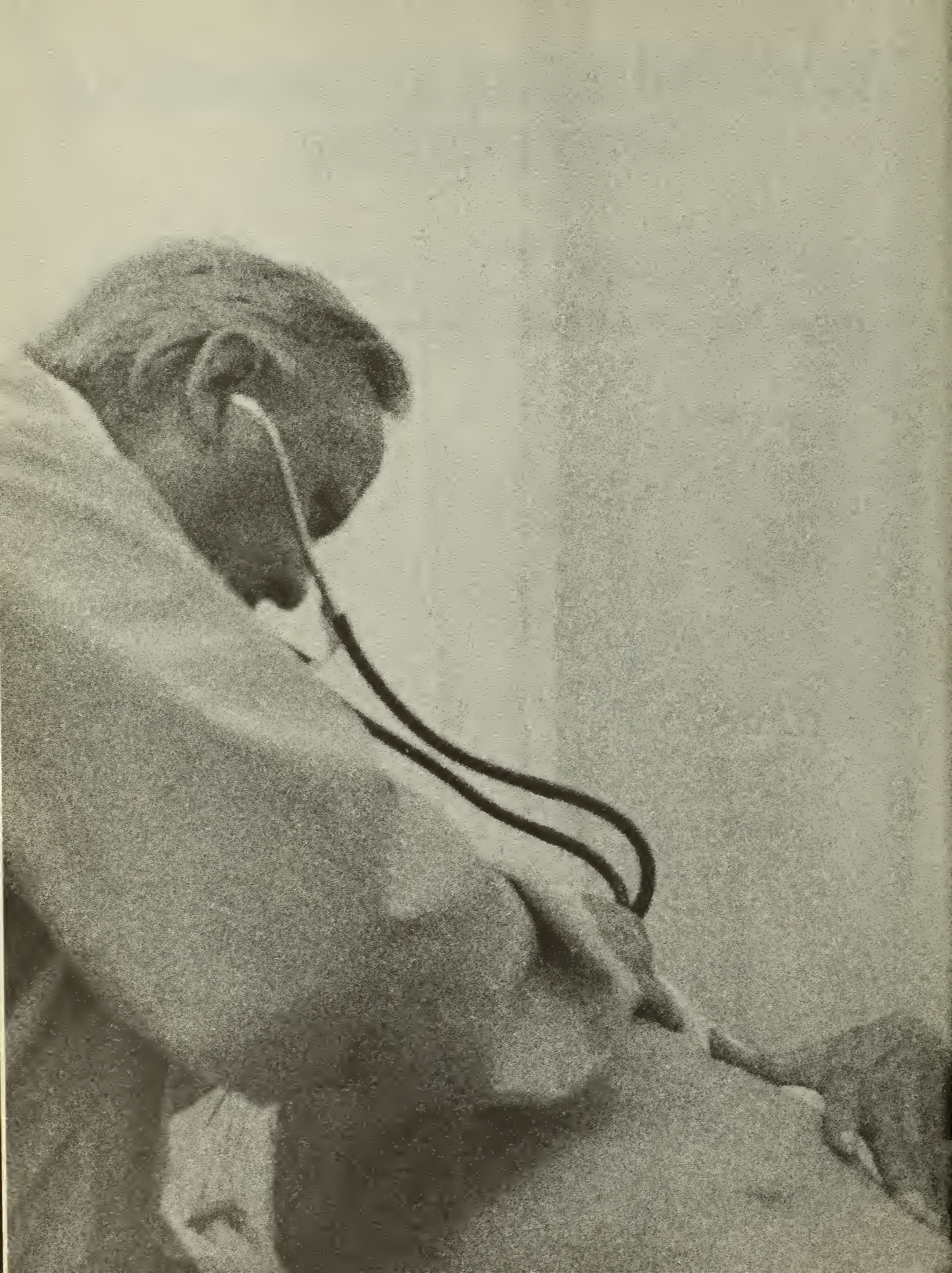

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Opposite: Dr. Carroll Behrhorst, an American physician, runs a clinic serving the Indians of southwestern Guatemala. In an article starting on p. 29, Eugene L. Herzog '75 argues for a class project that would use this clinic as a model.

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Cover: The ostrich that laid the golden eggs?? The cartoon by Philip Hale from which our cover shows a detail, stirred up quite an ostrich's nest among the Boston medical establishment when used as a battle standard by Ernest Amory Codman in 1915. For the complete story and the whole cartoon, turn to p. 12, before this mixed metaphor goes any further astray!

Credits: pp. 2, 30, 31, 33, Eugene L. Herzog; p. 8, Dan Bernstein; p. 11, Rick Stafford; pp. 12-20, Courtesy of the Rare Book Room, Countway Library; p. 16, Courtesy of Dr. Lloyd E. Hawes; pp. 29, 34, 35, Marilee Caliendo; p. 38, Stock Boston, Owen Franken; p. 40, Wide World Photos; pp. 42-43, Stock Boston, Patricia Hollander Gross; Cartoon p. 45, Gwen Frankfeldt; p. 47, *Boston Globe*; p. 64, Courtesy of Mrs. V. H. Kazanjian.

Overview

Cheever Spearheads HMS Admissions Review

A thorough review of Harvard Medical School admissions policies and procedures is being conducted by an ad hoc admissions review committee under the chairmanship of F. Sargent Cheever '36, who is to become director of admissions at the end of the present academic year. Dean Robert H. Ebert appointed Dr. Cheever and the other committee members as of 1 October 1974, asking them to carry out "a review of the current admissions process, including organization, composition, size, method of selection, structure, and modus operandi of the present admissions committee and office," and "to develop for consideration by the faculty a statement of admissions policy and . . . guidelines to govern the operation of the committee on admissions."

Dr. Cheever

Dr. Cheever, who formerly taught bacteriology and immunology here (1938-41, 1946-50), and has now assumed the title of visiting professor of microbiology and molecular genetics, says that he is "enjoying being back in the HMS orbit after an absence of almost twenty-five years." He spent the intervening period at the University of Pittsburgh, where he went in 1950 to become professor of epidemiology and microbiology in the Graduate School of Public Health. In 1958 he was appointed professor of microbiology and dean of the School of Medicine there. Nine years later he became vice chancellor for the Schools of the Health Professions, and from 1970 to his retirement in June 1974, was president of the University Health Center of Pittsburgh, a consortium of the University and its five affiliated hospitals.

During those years, Dr. Cheever maintained his ties with Harvard by serving as a member of the board of overseers of Harvard College from 1963-1969, chairing the overseers' visiting committee to HMS from 1964-1969, and acting as president of the Medical Alumni Association in 1970-1971.

The review of HMS admissions in which Dr. Cheever is now taking a principal role was stimulated largely by the report of the alumni survey committee last spring, based on interviews with members of the admissions committee, Dean Ebert and others. (See the *Bulletin,* March/April 1974, p. 10.)

In addition to that report, the review committee is seeking input, both formally and informally, from many sources. For instance, in January it was addressed by speakers from several minority student organizations at HMS. Among the key policy questions to be considered, Dr. Cheever lists that of minority admissions — whether a quota system or some other standard is to be used; and that of the Medical School's emphasis — whether on academic medicine or on a broader spectrum including primary care. "It remains to be seen," he commented, "whether even an institution as well-heeled as Harvard can be all things to all people." Dr. Cheever stressed, however, that the main determinant of policy changes in these areas will probably be the national health manpower legislation being considered by Congress.

The review committee hopes to have its report ready for presentation to the April faculty meeting. Serving on the committee are: Robert S. Blacklow '59, associate academic dean of the Faculty of Medicine; William D. Cochran '52, as-

sistant clinical professor of pediatrics at the Boston Lying-In Hospital and a member of the alumni survey committee; Dr. David W. Hamilton, associate professor of anatomy; Dr. Stephen M. Krane, professor of medicine at the Massachusetts General Hospital; Dr. Stephen W. Kuffler, John Franklin Enders University Professor; Mr. David W. Nierenberg '76; Chester M. Pierce '52, professor of education and psychiatry in the Faculty of Medicine and the Graduate School of Education; Dr. Edwin W. Salzman, professor of surgery at the Beth Israel Hospital; Dr. Charles A. Sanders, associate professor of medicine at the MGH; Larry G. Seidl '61, clinical instructor in medicine and teaching an elective in his three-man internal medicine/primary care practice in Wareham, Massachusetts; Dorothy B. Villee '55, principal research associate in pediatrics at the Boston Lying-In Hospital and a member of the admissions committee; Carl W. Walter '32, chairman of the alumni fund; and Dr. Alonzo S. Yerby, professor of health services administration and associate dean for community affairs in the School of Public Health.

Dr. Cheever has served as president of the Federation of American Societies for Experimental Biology (1962) and the American Association of Immunologists (1963-64). He is a member of the board of trustees of the Sarah Scaife Foundation and a fellow of the American Academy of Arts and Sciences. For six years (1967-73) he served on the Armed Forces Epidemiological Board and directed the Board's Commission on Enteric Infections (1958-63). He was a member of NIH's National Research Resources Council from 1968-72.

The future director of admissions comes from a distinguished Massachusetts medical family. His grandfather, Dr. David W. Cheever, and father, Dr. David Cheever, did much to shape surgery at HMS. In 1969, a Cheever Professorship in Surgery was established by the President and Fellows of Harvard College, with funds contributed by the family and friends.

Dr. Cheever received his A.B. degree from Harvard College in 1932. After graduating from HMS, he spent his internship and residency in medicine at Presbyterian Hospital in New York.

Joint Committee on Status of Women Report Details First Year Progress

The Joint Committee on the Status of Women draws members from the employees, non-teaching officers, faculty, students, and house officers of the Harvard Medical School, Schools of Dental Medicine and Public Health, and is charged with the responsibility to review and to recommend improvements in the status of women at the three schools. For operational purposes the Committee has divided itself into three task forces, focusing attention on issues of particular importance to students, faculty and employees. Each task force has enlisted additional help from other persons having common interests in the Medical Area. All told, more than eighty persons have devoted considerable time and effort to the Committee's ongoing activities. Each task force has undertaken to define and to set priorities among the issues of special concern to its members and their constituencies.

Harvard recruits high quality personnel, who are proud to be employed here. The Committee, through the Employee Task Force, is trying to identify barriers to career advancement among these employees, the majority of whom are women. Career attitudes and success in pursing career aspirations of men and women employees have been documented and are now being compared. Because education may unlock doors to better jobs and enhance the already high quality of Harvard employees, the Committee has sought to provide increased educational opportunities here. The Committee recommended and the Deans approved a pilot educational program for the Medical Area, similar to that underway at the School of Arts and Sciences. Employees of the three schools are now taking courses in the Medical Area for credit, and for a minimal fee.

The Student Task Force of the Committee has been especially concerned about three issues: 1. sex discrimination as it may result in unequal education; 2. flexible-time and part-time residency programs; and 3. factors influencing specialty choice and other career decisions of women. Sexist obstacles to equal education encompass a wide range of circumstances, summarized in the following article.

Flexible and part-time residency programs are of special interest to both men and women students. The Committee supports the students' efforts to promote the development and implementation of such programs. The support of the clinical faculty is critical to the success of these efforts. The students are currently studying those factors which determine career decisions of women in the medical field. The students have been gratified, as have many of the staff and faculty, to note the increased numbers of women admitted to the Medical and Dental Schools over the past few years. The Committee joins the students in recommending similar increases in the percentage of women among faculty, advisors, tutors and administrators.

The Committee has set three major objectives regarding women faculty:
- To increase the participation of women at decision-making levels of the faculties of medicine, dental medicine, and public health;
- To document the present status of women faculty in the three categories:

This is a summary of the speech by Dr. Shirley Driscoll presented at the faculty meeting on November 8, 1974. Dr. Driscoll is chairperson of the JCSW.

AFT, CFT, and Associate status; and
• To discover the degree to which Affirmative Action procedural safeguards are being implemented in each department of the three faculties.

As of May 1974, women were serving as full members on only eighteen (or thirty percent) of the sixty-two standing committees of the Medical School. (This fall has brought the appointment of women members to many more of these important committees.) In May 1974, only two of 136 members of *ad hoc* search committees of the medical faculty were women. The Joint Committee considers that women faculty will not enjoy equal employment opportunities and students will not attain equal education until women participate in decision making, on committees, as advisors, tutors and role models.

Ongoing analyses of the academic status of women faculty demonstrates clearly that there are fewer and fewer women at higher and higher academic ranks. Overall, 13% of teaching appointees are women; only 5.2% of those of faculty rank are women; among professors 1% are women. The Committee is now working on a comparison of the careers of the entire pool of faculty men and women. The Committee has also sought to discover the extent to which Affirmative Action is being implemented in the faculty and to educate those concerned by means of a questionnaire.

The premise of Affirmative Action is that positive action must be undertaken to overcome the effects of institutional forms of exclusion, and requires that the employer make additional efforts to recruit for employment and promotion qualified members of groups formerly excluded even if that exclusion cannot be traced to particular discriminatory acts on the part of the employer. Toward implementation of Affirmative Action and in the spirit of goodwill, the Joint Committee has made the following recommendations:
• That this Committee be represented on the Equal Opportunities Employment Committee.
• That at least two more Affirmative Action officers be appointed for the Medical Area. These officers should be people who can and will act as advocates to the people with power. Preferably, they should include a woman and a member of a minority group.
• That an Affirmative Action Committee, similar to that functioning at the School of Public Health, be established for the Medical and Dental Schools.

Sex Discrimination Study Cites Inequalities

Evidence of unequal education, facilities and treatment and of a negative atmosphere for women students in the Harvard Medical Area, is documented in a report entitled *Obstacles to Equal Education at Harvard Resulting from Sex Discrimination,* issued in October following the approval of the administrative board (Faculty of Medicine). The report, compiled by the Student Task Force of the Joint Committee on the Status of Women, is based on the first hundred incidents of sex discrimination submitted by fifty students at the Harvard Medical, Dental, and Public Health Schools during a two-month period.

Among these incidents, fifty-two percent occurred at the teaching hospitals in clinical situations; thirty-one percent in the classroom, lecture hall or first-year clinics; and seventeen percent in other situations.

Dean Robert H. Ebert responded to the report by urging members of the Faculty of Medicine to read it carefully, and stated that such incidents of sex discrimination evidenced "a very real problem which affects the quality of education we provide for women students at the Harvard Medical School."

According to the study, one form of discrimination "inevitably resulting in unequal educational opportunity" falls under the heading of "Ignoring Female Presence." The largest number of incidents analyzed were in this category, including:

• On the institutional level, the insufficiency of sleeping, dressing, and bathroom facilities for women on rotations in the Harvard teaching hospitals; and the huge sums spent for men's athletic equipment at Vanderbilt Hall while women lack even a dressing room (there is now, however, a small locker room in Vanderbilt).

• In teaching materials, the omission of normative values on female physiology when apparent differences exist between males and females.

• In teaching situations the practices of speaking as though only men were present, neglecting to call on female students for answers in class or presentations on clinical rotations, and avoiding the instruction of women in how to examine the male genitalia.

In addition, the report categorizes incidents of sex discrimination into four other types, which contribute to what it terms a negative, demeaning atmosphere towards women:

• Condescension — e.g., as one respondent complained, "Calling a woman student 'dear,' or 'gal,' or by her first name when male colleagues are called 'Mr.' or 'Dr.' " Or, "Being called on in class for minor points yet not being taken seriously when doing the major analysis; physicians being fairly condescending in discussing female patients."
• Hostility — e.g., grading a woman on a clinical rotation lower than a male student who had obviously done less well; expressing the view that women do not belong in medicine: "My tutor told me to my face he thinks women should not be in medicine."
• Role Stereotyping — e.g., calling female medical students "nurses" and relegating them to running errands, holding retractors, and so on; referring to a patient who had worked as a guidance counsellor all her life as "this fifty-five year old housewife"; making such insulting remarks as "Why don't you just stay home and have babies?" Stereotyping of women also extends to their sexuality and appearance, as judged by male standards: "At X unit

(hospital name deleted): Female student: 'Excuse me, is Dr. Y here?' Male doctor: 'No, honey, but come in and take off your clothes.' "

• Sexual Innuendo — e.g., commenting upon the sexual attractiveness or unattractiveness of female students and patients during the course of a class, demonstration or presentation of a patient. A male medical student described an incident in which, when the one women member of a group was absent, the tutor peered into an examining room and told three remaining male medical students, "There's a seductive looking girl in there (patient). Maybe I should send you in one at a time."

To the end of eliminating sex discrimination at Harvard, the report makes thirteen recommendations, among which are the following:

1. Teaching material generated at Harvard should include comparable data on females and males;

2. When textbooks are used that misrepresent or omit pertinent data on females, these data should be provided in lectures, demonstrations, or other materials generated at Harvard;

3. Teaching materials generated at Harvard should always assume that students are males and females;

4. All students must learn to perform complete physical examinations on both sexes;

5. Derogatory statements (including "jokes") about women in general, nurses, technicians, and patients of either sex, and the flashing of pin-up slides do not create an acceptable learning environment, and these practices must be discontinued;

6. To balance the possible effects of subjective grading on clinical rotations, some formal statement of course goals should be generated;

7. To neutralize the environment in small group situations: a. women should be given the option of being paired with other women in tutorial groups and on clinical rotations where possible; and b. the number of female students, interns, house officers and especially faculty should be increased;

8. Reaffirm that all courses and electives must be open to students of both sexes;

9. Harvard and those institutions in which Harvard has academic programs must provide equivalent facilities and accomodations for men and women students . . . . . (including) bathrooms, lockers and "On Call" rooms in teaching hospitals.

The most important recommendation, however, is to provide a mechanism whereby these types of grievances can be redressed — "that effective procedures be set up to resolve complaints as they are brought to light." On 29 October 1974 the administrative board unanimously endorsed the report's recommendations.

Formal Merger Precedes AHC Construction

On January 1, 1975, the merger between the Boston Hospital for Women, Peter Bent Brigham, and Robert B. Brigham Hospitals to form one hospital corporation, the Affiliated Hospitals Center (AHC), went into effect. The agreement of merger was submitted to the Secretary of the Commonwealth of Massachusetts on December 12, 1974. The new Harvard-affiliated teaching hospital will consist of 680 adult medical/surgical and obstetrical beds and will be one of the largest and most comprehensive health care centers in the country.

Details of the merger agreement have taken almost two years to work out. Each hospital will be recognized as a division of the Affiliated Hospitals Center Corporation. The previously existing boards of trustees of the hospitals will continue as boards of overseers, supervising the activities of the respective divisions under the jurisdiction of a central board of trustees consisting of seventeen persons.

F. Stanton Deland, Jr., president of the AHC, has announced nine of those seventeen members: John Lowell, Robert G. Wiese, and William B. Tyler from the BHW; Alan Steinert, Jr., G. d'Andelot Belin, and Richard P. Chapman from the PBBH; Joseph P. Tyrrell, John P. Chase, and John E. Rogerson from the RBBH. Five public trustees will also be named for a total of fourteen who will then elect three trustees-at-large.

Approval for the AHC met with resistance, primarily from consumer-oriented contingents, Obtaining the Certificate of Need in April 1974 required intensive give-and-take among AHC, regional and state planning agencies and the Massachusetts Public Health Council. Neighborhood groups, concerned with both medical care and land use issues, organized in opposition to the project. By the spring of 1974, agreement in principle was reached with objecting groups, and a separate formal accord is being prepared for signature by the parties involved.

The first order of business for the newly merged corporate entity will be to prepare for the construction of a new building, scheduled to commence late in 1975. This building, designed to accommodate inpatient and outpatient services for the three institutions, will be located adjacent to the PBBH and will cost in excess of $100 million.

While construction is in progress there will be a gradual organizational merger. The by-laws of the AHC specify that once consolidation is complete there will be a single medical staff, bringing together the expertise of physicians to facilitate a coordinated response to health problems.

CORRECTION!

Contrary to what was printed in the last *Bulletin,* the Class of 1978 will not be able to graduate a year sooner, in 1977. Sorry, HMS I!

Grant First Incumbent of Cogan Professorship

Walter M. Grant '40, whose research has improved the diagnosis and treatment of glaucoma, was named the first incumbent of the David Glendenning Cogan Professorship in Ophthalmology at Harvard, as of September 1, 1974.

A professor of ophthalmology at HMS since 1967, Dr. Grant is director of the Glaucoma Consultation Service, surgeon in ophthalmology, and chief of the Wednesday Eye Service at the Massachusetts Eye and Ear Infirmary. He has served the Medical School and the Infirmary since 1941.

The chair which Dr. Grant now holds, honors David Glendenning Cogan '32, former director of the Howe Laboratory of Ophthalmology at the Massachusetts Eye and Ear Infirmary from 1943, and professor of ophthalmology at Harvard until his retirement last August. Established by the University in 1969, the professorship was made possible through funds donated jointly by The Scaife Family of Pittsburgh and the Permanent Charity Fund, Inc., of Boston. Dr. Grant's appointment to the chair bearing Dr. Cogan's name caps a thirty-three-year friendship and professional association between the two men at the Howe Laboratory.

Dr. Grant

In Dr. Grant's early studies of the physiology of the eye, he was concerned with the formation of intraocular fluid, which in turn drew his attention to glaucoma. Dissatisfied with current methods limited to measuring static intraocular pressure, he devised a method of evaluating the flow conditions responsible for the pressure, a procedure which is now a standard research and clinical tool throughout the world. Using tonography, Dr. Grant demonstrated that virtually all types of glaucoma result from obstructions to fluid outflow, and that treatment specific to the particular kind of obstruction is important. In addition, he has contributed significantly to the pharmacology and surgery of glaucoma.

Dr. Grant has served as a member of the National Research Council Drug Efficiency Study and as a consultant to the National Eye Institute's Board of Scientific Councilors, and is now serving on the NIH National Advisory Eye Council and the Food and Drug Administration's Ophthalmic Drugs Advisory Committee.

Among his many honors have been the New England Ophthalmological Society Award (1951), the Proctor Medal Award (1956), the Knapp Medal Award (1961), the American Ophthalmological Society Howe Medal (1968) and the Research to Prevent Blindness Trustees Award (co-recipient) in 1969.

Ryan Takes Charge of Reproductive Lab

Kenneth J. Ryan '52, the Kate Macy Ladd Professor and head of the department of obstetrics and gynecology at HMS, and chief-of-staff at the Boston Hospital for Women, has been appointed director of the Laboratory of Human Reproduction and Reproductive Biology here.

Dr. Ryan succeeds Roy O. Greep, Ph.D. as head of the nearly three-year-old laboratory, which brings together workers from diverse fields within the University who share an interest in the problems of reproduction and population control. Dr. Ryan himself is noted for studies related to the biochemistry and physiology of reproduction, and directs a research program at Harvard whose goal is to establish the role of steroid hormones in the control of gonadotrophic secretions and sexual behavior.

In 1960-61 Dr. Ryan directed the Fearing Research Laboratory at Harvard, and later, after an eleven-year absence, returned to join the Faculty of Medicine and the Boston Hospital for Women in 1972. In the interim, he served for nine years as the Arthur H.

Dr. Ryan

Bill Professor and chairman of the department of obstetrics and gynecology at Case-Western Reserve School of Medicine. He was named chairman of the department of reproductive biology there in 1968 and coordinator of biological sciences in 1969. From 1970 to 1972 he served as professor of reproductive biology and chairman of the department of obstetrics and gynecology at the University of California, San Diego, School of Medicine.

Following his graduation magna cum laude from HMS, Dr. Ryan took postgraduate clinical training in medicine at the Massachusetts General Hospital and the Columbia Presbyterian Medical Center, and in obstetrics and gynecology at the Boston Lying-In Hospital. It was during this period that he began his studies of steroidal estrogens.

Shore Heads Mass. Mental Health Center

A noted New England psychiatrist and scholar, Miles F. Shore '54, has assumed the posts of area director and superintendent of the Massachusetts Mental Health Center (MMHC) in Roxbury, and professor of psychiatry in the Faculty of Medicine at HMS.

In order to take on these new duties as of the first of the year, Dr. Shore resigned as director for community and ambulatory care at the New England Medical Center Hospital, as well as associate dean of community affairs and professor of psychiatry and of community health at the Tufts-New England School of Medicine. He continues, however, as a faculty member of the Boston Psychoanalytic Institute.

His appointment as superintendent of the MMHC was made by Mental Health Commissioner Dr. William Goldman, in accord with the recommendations of a search committee of citizens and professionals in the mental health field, chaired by Arthur J. Bindman, Ph.D., Regional VI mental health administrator.

Dr. Shore succeeds Dr. Jack Ewalt, the Bullard Professor of Psychiatry at HMS, who resigned the MMHC post last year to become senior associate dean for clinical affairs at the Medical School. In the interim, Dr. Elvin V. Semrad served as acting superintendent.

Dr. Shore has rejoined the Faculty of Medicine here after a ten-year hiatus. Between 1955 and 1965, he taught psychiatry at HMS as a teaching fellow, assistant, and instructor, while taking his psychiatric residencies at the MMHC (1955-56, 1958-59) and the Beth Israel Hospital (1959-61), and serving on the staff of the Beth Israel (1961-64). In 1965 he graduated from the Boston Psychoanalytic Institute, and from 1966 to 1970 he was a special lecturer in psychology at the Simmons College School of Social Work.

Dr. Shore

He has served as psychiatric consultant to organizations including the City Missionary Society (from 1964), the Tufts-Delta Health Center (1969-71), the Arabian American Oil Company's medical department in Saudi Arabia (1972), and the World Council of Churches in Switzerland (1973).

A past president of the Northern New England District Branch of the American Psychiatric Association, Dr. Shore is currently chairman of the Public Education Committee of the Group for the Advancement of Psychiatry.

Unanue Appointed Mallinckrodt Professor

Dr. Emil Raphael Unanue, an outstanding immunologist and member of the Medical School faculty, has been named the first incumbent of the Edward Mallinckrodt Professorship in Immunopathology recently established in the department of pathology of the Faculty of Medicine, through a gift from the Edward Mallinckrodt Foundation of St. Louis.

The new chair honors an active alumnus and generous benefactor of Harvard, Edward Mallinckrodt, Jr. His bequest to the University at his death in 1967 initially made possible the establishment of eight professorships, two each in chemistry, biochemistry and physics in the Faculty of Arts and Sciences, and in medicine and pathology in the Faculty of Medicine. The new professorship in immunopathology is intended to support an individual engaged in pioneering research into the nature of the human immune response.

Dr: Unanue's research has resulted in fundamental contributions in several areas of immunopathology, at both the experimental and morphologic levels. His earliest investigations, under the guidance of Dr. Frank J. Dixon of the Scripps Clinic and Research Foundation in California, dealt with antibody-induced glomerulonephritis, and produced results fundamental to present understanding of some autoimmune diseases of the kidney. Next, Dr. Unanue turned his attention to the role of macrophages in the induction of the immune response. Since then, he has been studying the lymphocyte and its receptors for antigen molecules, most recently in collaboration with Dr. Morris J. Karnovsky, Shattuck Professor of Pathological Anatomy at Harvard.

Dr. Unanue was born and educated in Cuba, receiving his MD degree in 1960 from the University of Havana School of Medicine. He then interned in pathology at Presbyterian University Hospital, Pittsburgh, and did postgraduate work as a research fellow at The Scripps Clinic and Research Foundation in La

Dr. Unanue

Jolla, California, and at the National Institute for Medical Research in London. He joined the HMS Faculty of Medicine in 1970, as assistant professor of pathology. In 1974 the American Society for Experimental Pathology honored Dr. Unanue with its eighteenth annual Parke Davis Award for a member, "under forty, who has contributed most to the conquest of disease."

Wiesel Holds Winthrop Chair in Neurobiology

The new incumbent of the Robert Winthrop Chair in neurobiology in the Faculty of Medicine is Dr. Torsten Nils Wiesel, chairman of the department of neurobiology. His appointment to the professorship dates from last summer, when its first incumbent, Dr. Stephen Kuffler, relinquished it to accept the John Franklin Enders University Professorship at the Medical School.

Dr. Wiesel

The Winthrop Chair was established by the University in 1964 with a gift from Robert Winthrop, who is a member of the Class of 1926 at Harvard College, later attended the Harvard Graduate School of Business Administration, and is currently a member of the Harvard Board of Overseers' Visiting Committee to the Medical and Dental Schools.

Dr. Wiesel joined the Faculty of Medicine in 1959, becoming professor of physiology in 1967 and professor of neurobiology in the following year. Since coming to HMS, he has been engaged in a highly productive research partnership with Dr. David Hubel, the George P. Berry Professor of Neurophysiology. Their explorations of mammalian visual functions have clarified the manner in which the central nervous system processes information. They have demonstrated that the interconnections in the visual cortex necessary for assimilating information are present from birth, rather than being developed through learning. In addition, their work on visual deprivation has yielded new knowledge on the questions of nervous system plasticity and the modification of brain structures by environmental influence. For these visual studies, Drs. Wiesel and Hubel received the Jules Stein Award from the Trustees of Research to Prevent Blindness, Inc. in 1971, and, the following year, Brandeis University's Lewis S. Rosensteil Award for Basic Medical Research.

Born in 1924 in Upsala, Sweden, Dr. Wiesel received the MD degree in 1954 from the Karolinska Institutet in Stockholm. After serving for a year as instructor in physiology and assistant in the department of child psychiatry there, he joined the staff of the Johns Hopkins School of Medicine as a fellow in ophthalmology.

Berman-Gund Laboratory Dedicated at Eye & Ear

On 9 November 1974 dedication ceremonies were held at the Massachusetts Eye and Ear Infirmary for the Berman-Gund Laboratory for the Study of Retinal Degenerations, a joint effort of HMS and the Infirmary.

The new laboratory will emphasize research on retinitis pigmentosa and other degenerative diseases of the retina, from which over 100,000 people in the United States now suffer. First director of the laboratory will be Eliot L. Berson '62, an authority on retinal degenerations who is assistant professor of ophthalmology here, and founder of the Electroretinography Service at the Massachusetts Eye and Ear Infirmary.

The Berman-Gund Laboratory is named in honor of Bernard Berman, founder and president of the National Retinitis Pigmentosa Foundation, and Gordon Gund, cofounder of the Foundation and vice chairman of its national board of trustees, and vice president of the George Gund Foundation.

Weiss Named Assistant Dean, Clinical Affairs

HMS's new assistant dean for clinical affairs is Nathan H. Weiss, who was formerly head of the Calechman Insurance Agency, Inc., and president of Family Counseling of New Haven, a psychiatric counseling service. In his new post he works with Dr. Jack R. Ewalt, senior associate dean for clinical affairs in the Faculty of Medicine.

Mr. Weiss is a former chairman of the Connecticut affiliate of the American Civil Liberties Union and an ex-member of its national board. From 1969 to 1974, he served as a consultant to the Connecticut Motor Club and was an editorial writer for its publications. An appointment by the US Secretary of Transportation brought him to Washington, D.C. in 1968-69 as a senior analyst to study no-fault auto insurance.

A graduate of Oberlin College in political science, Mr. Weiss received a master's degree in government at Yale in 1947. He taught courses in government and international relations at Quinnipiac College in New Haven. Later, as an associate fellow of Branford College at Yale, he served as a resource person for students interested in his professional field and his community service activities. Among such involvements were his vice-chairmanship of the New Haven Human Relations Council in 1953, and his membership on the Governor's Task Force, Mental Retardation Planning Project in Connecticut in 1965-66.

Emergency CCU: Only a Heartbeat Away

Members of the mobile cardiac unit resuscitating a recent heart attack patient: JoAnn Chaharyn, M.D. (foreground, wearing cardiac unit vest); then, clockwise: William S. Kaden, M.D.; Roberta Keene, R.N.; Susan Barker, technician; Michael Rie '66; and Janice Flaherty, R.N.

Time is of the essence for a heart attack victim. But if someone is stricken at a football game, chances are that the few minutes needed to get to emergency aid often can result in irreversible brain damage or death. Now, Harvard's emergency coronary care units, conceived by Dr. William S. Kaden, director of the Business School Health Service and physician to the University Health Services, enhance the odds in favor of recovery for heart attack patients because immediate resuscitative aid is brought to the victim. Ushers are ready to alert Harvard police who then radio the location of the patient to the team. At every home game this fall, two emergency coronary care teams were stationed in the stands. Each team was equipped with lifesaving battery-operated equipment — a portable electrocardiograph-defibrillator, suction, pre-packaged medication, oxygen, and a variety of airways. The teams each included an internist, an anesthesiologist, two emergency medical technicians, and a registered nurse with intensive care experience. Heading the two groups were Michael Rie '66, instructor in anaesthesia at the Medical School and member of the Respiratory Intensive Care Unit (RICU) at the MGH and his associate, Dr. JoAnn Chaharyn. The other medical personnel were Roberta Keene, R.N., Janice Flaherty, R.N. from the RICU at the MGH; Susan Barker, Richard Sheppard, and Ben Halprin, emergency medical technicians.

The units' emergency measures were required twice this past season. On October 5th, a 72-year old man was successfully resuscitated after collapsing one and one-half minutes earlier; and on October 19th, a 62-year old man with a history of serious heart disease left the stands and collapsed into an unconscious state, without pulse or breathing, but after half an hour the team had revived the man's vital signs and eventually stabilized his heart rhythm; afterwards he was admitted to the MGH for further treatment.

Previously, Dr. Kaden maintained a small coronary intensive care unit at the Dillon Field House, adjacent to the stadium, however, few football stadia have even that type of facility. To date, Harvard's roving emergency aid system is the only one in the country that can act within one to two minutes of a heart attack. Dr. Kaden hopes similar units will be designed for use in other stadia.

Human Studies Group to Monitor Research

A review committee and a set of guidelines governing the use of human subjects in research have been established by the Harvard Medical School and the School of Dental Medicine.

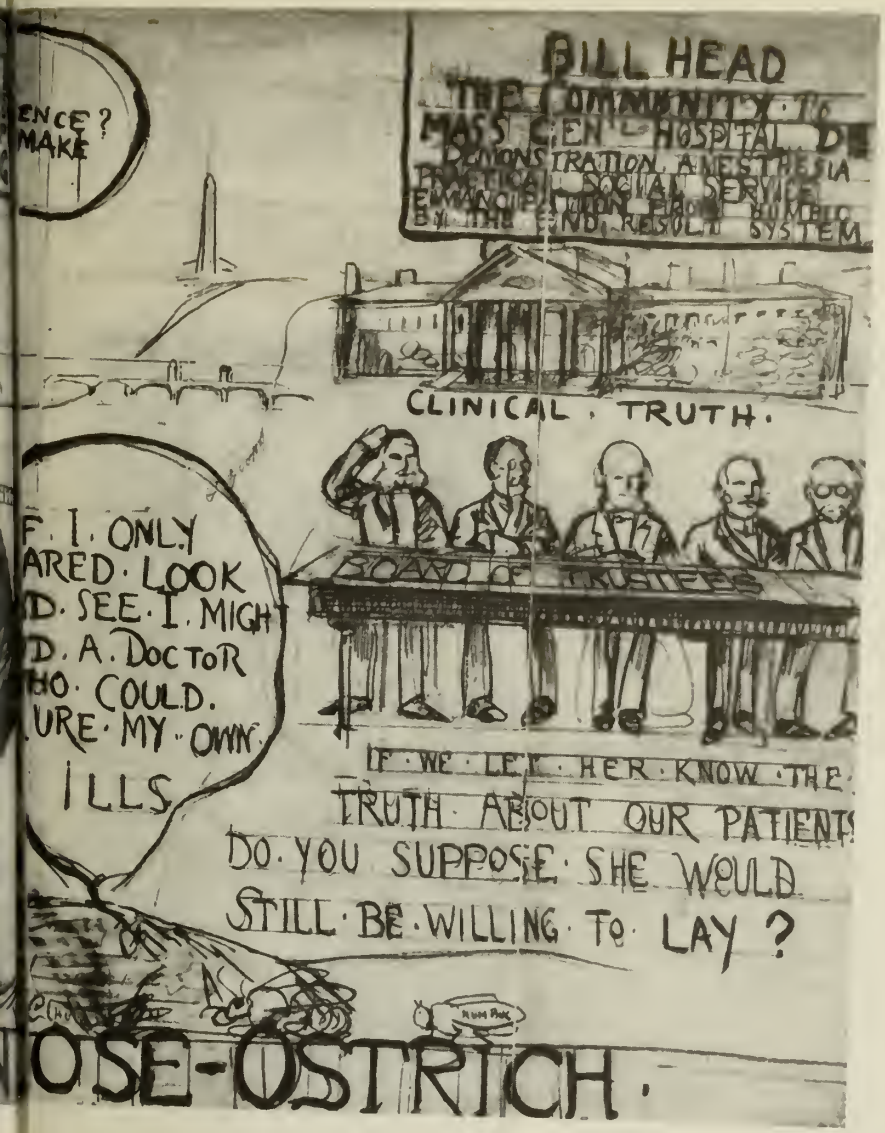
The new Human Studies Committee in the Faculty of Medicine, under the chairmanship of Herbert Benson '61, associate professor of medicine at the Beth Israel Hospital, will meet monthly to review and approve research activities to be conducted under the schools' auspices. Specifically, in each case the committee will attempt to determine: (1) whether risk to human subjects will be involved, and, if so, whether such risk is outweighed by the possible benefit to the subject and/or the importance of the knowledge to be gained; (2) that each subject's rights and welfare are adequately protected; (3) that informed consent is obtained by adequate and appropriate methods; and (4) that a schedule of ongoing review is set up to ensure the continued effectiveness of the foregoing determinations.

The committee's sixteen members include a homemaker, a member of the clergy, a lawyer, and an HMS student, as well as members of the Faculty of Medicine.

Surgical Biology and Applied Sociology*
Cannon and Codman Fifty Years Later

by Francis D. Moore '39
Surgeon-in-Chief, Peter Bent Brigham Hospital
Moseley Professor of Surgery, HMS

* Address presented to the Boston Surgical Society on the occasion of the award of the Henry Jacob Bigelow Medal, 5 November 1973.



The ostrich egg cartoon of Dr. Codman, drawn by Philip Hale and shown in the Ware Room Meeting on January 6, 1915. It deserves close study not only to reveal the Bunker Hill Monument standing behind the MGH, with the humbugs crawling along the ground, the accurate drawing of the Medical School and Memorial Hall, but the sketchy depiction of the central buildings of MIT in the center, with a large gas storage tank. Note that "the community" figures prominently!

From the Beginning

Since the first abscess was drained, the first fracture reduced, or the first tumor excised, advances in surgery have resided in the widening scope of its safe application. The method of anesthetized tissue dissection advanced briskly if not always cautiously during the era of Henry Jacob Bigelow, as he and his colleagues perfected new devices and new techniques rapidly, following the introduction of ether anesthesia. Many of their undertakings, especially in elective surgery, were still dangerous, as bacteriology was yet to come. The absence of this science took a terrible toll in the "black period" of surgery between the demonstration of ether in 1846, and the widespread acceptance of Lister's aseptic techniques around 1886.[1]

A recital of the widening applications of surgical care to the treatment of human illness during the first seventy-five years of this century would be a redundancy today. Our own generation has been engaged in this profession for about forty years. The achievements of surgery during that time are epitomized by the many diseases formerly regarded as hopeless, the patients relegated to chronic care or sent home to die. Such patients were rarely viewed by students during our medical school days; now they are found on our surgical wards doing well after operations. These include patients with late mitral stenosis, congenital heart disease and coronary insufficiency, terminal renal failure, aortic and cerebral aneurysm, hydrocephalus, renal hypertension and advanced degenerative hip disease as well as tumors of the pancreas and liver — to mention but a few. Such advances are still going on at an exciting rate.

Although surgery is now under fire and somehow appears superficially to be in opposition to community needs and primary care, it has provided new forms of definitive relief for more patients than any other single treatment modality. For many diseases, the advent of surgical treatment has been the primary therapeutic advance made during this century. This is certainly true of congenital heart disease, advanced valvular heart disease, terminal renal failure, aortic aneurysm, degenerative hip disease and retinal detachment.

The methods of surgery are as ancient as helping hands and sharp instruments. None could have envisioned the sophisticated nature of modern surgery

W.B.C.: "The idea flashed through my min... if conceived as bodily preparations for supre... interruption of a process that was not essenti... blood urgently needed elsewhere."

nor the related concerns to which it gave rise. Fifty years ago in Boston, two new surgical topics emerged.

Two fields;
Two pioneers

The first of these was *applied surgical biology*. This is the basis of the care of the surgical patient. Widening knowledge of surgical biology has provided a sort of support structure in pre-operative and post-operative care, to make the expanded techniques of surgery both feasible and safe. And yet, up to this time there has been no answer to a central question: What is it that is so unusual about the bodily reactions of the surgical patient? Why does someone waste away so rapidly after severe injury or infection? What devours the muscles, hydrolyses the protein and discards the nitrogen so much more quickly than those of another who is simply off food intake for a few days? Clearly, the surgical patient must maintain blood pressure despite blood loss, and must make new tissue while starving. Do these two tasks, performed in adversity, elicit this unique physiologic response? These questions increase in importance as the scope of surgery widens.

The second topic was the *sociology of surgical care,* also mounting in urgency because of the very success of surgery. Long silent beneath the surface, it now surfaces with a splash because of the sudden recognition of the public service aspect of surgery: the wide availability of safe surgical care as a societal obligation, as a public utility.

In the time of Henry J. Bigelow, the surgical operation was an occasional heroic maneuver, quasi-theatrical (performed, after all, in a theatre), the surgeon often a virtuoso, and the operation undertaken at the call of the despairing physician when all else failed. Now it has become a quiet, non-glamorous, even routine way of treating human illness. It has become, somehow, too effective in the eyes of the patient, too precious in the eyes of the public, too expensive in the eyes of the payor (and possibly too dangerous in the eyes of the physician!) to be left to the haphazard, unregulated one-to-one contact of provider with consumer. All the regulatory mechanisms of American medicine from the most primitive Blue Cross to the most modern HR-1 and PSRO have as their first target the surgeon, the surgeon's patient, and the transactions that go between, be they physical or fiscal.

Each of these two fields of surgical development had a creative and remarkable man as its paladin — Walter Bradford Cannon in applied surgical biology and Ernest Amory Codman in the sociology of surgical care. Both were contemporaries working in Boston around the turn of the century, and both of them alumni of the Harvard Medical School. Many things we do today in medicine, laws we must obey or pass, laws of nature or laws of men, trace back to the thinking of these two men.

For my own part, their two fields of interest have represented two matters of central interest since medical school days. Walter Cannon was our professor of physiology; he taught us personally and warmly, and we dedicated our yearbook to him in 1939. Dr. S. Burt Wolbach wrote a charming memoir on Dr. Cannon, for the dedication.[2] We learned about shock, blood vessel responses and the adrenal medulla at the feet of the Master. We did not have Amory Codman to guide us personally, but we were treading paths he had blazed when we explored social questions then coming to light. In those same years several medical students met weekly at Vanderbilt Hall for dinner and an informal seminar on medical history and economics. We prevailed upon a labor-relations expert, Professor Douglas Brown of M.I.T., to lead our discussions. We were excited about new and drastic changes then coming over the horizon, such as White Shield, White Cross, and Blue Cross. These new departures in health care delivery (then termed "medical economics") were regarded as a sort of Socialist-Communist infiltration by the conservatives of the day, as epitomized by the American Medical Association. It was evident to us as medical students that they were no such thing, but were just a part of the future. It was my privilege to have known and seen Amory Codman occasionally when he came to the MGH as a senior member of the surgical staff and was asked to discuss disorders of the shoulder joint.

At that time we were using Dr. Codman's classification of surgical errors, ignorant that he had developed this system in 1908, some thirty years earlier. As a medical student I never anticipated either the continuing eminence of the ideas of these two members of our faculty, or the continuing nature of my own interest in these same fields of physiology and sociology.

W.B.C. of Prairie du Chien

Walter Cannon was born in 1871 in Prairie du Chien, Wisconsin. This was the site of Fort Crawford, where about sixty years previously William Beaumont had studied gastric physiology in the shotgun-wound gastric fistula of Alexis St. Martin. Cannon's family, originally emigrating from Ireland as the Carnahans, had journeyed to the middle West about seventy years before. They were of the real pioneer stock of the upper Mississippi Valley. Walter Cannon was a very Middle Western sort of a person: humble, clear, direct, uninterested in the Social Register and unimpressed by superficialities of any sort. On the suggestion of one of his high school teachers in St. Paul, Minnesota, Walter Cannon decided to take

...hat these changes could be nicely integrated ...effort in flight or fighting . . . it was the ...a life-or-death emergency, using

Walter Bradford Cannon 1871-1945

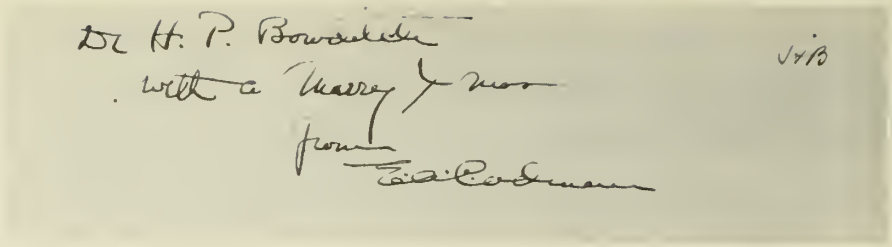
the long chance, and applied for admission to Harvard College. Successful, he ventured "back East." He graduated from college in 1895 and from the Harvard Medical School in 1901. He had done research in zoology at Harvard College as an undergraduate. As a first year medical student he commenced studies with Professor Henry Pickering Bowditch who then presided over the Physiology Laboratories of the Medical School, located in the Back Bay.

Professor Bowditch urged the young Cannon to try the newly discovered "X" rays as a means of physiologic study. Cannon's response to the challenge was to develop the use of contrast substances to opacify the intestinal tract, enticing a trained goose to swallow pellets of cornmeal mush mixed with bismuth (after an unsuccessful experiment with pearl buttons). For the wealth of knowledge and clinical utility that came from this method alone, he merited more surgical awards than he ever received. But for our history here the importance of Walter Cannon's study of the gastrointestinal tract was that it introduced him to the autonomic nervous system and the regulation of visceral function. Later on he wrote in his autobiography *The Way of an Investigator*: "My whole purpose was to see the (peristaltic) waves and learn their effects . . . only after some time did I note that the absence of activity was accompanied by perturbation, and when serenity was restored the waves promptly reappeared. This observation, a gift for my troubles, led to a series of studies on the effects of strong emotions on the body." And, "The idea flashed through my mind that these changes could be nicely integrated if conceived as bodily preparations for supreme effort in flight or in fighting . . . it was the interruption of a process that was not essential in a life-or-death emergency, using blood urgently needed elsewhere."[3]

For the development of surgical care, Cannon's importance lay in his identification of the chemical autonomic mediators that at first he lumped together under the term "adrenines." He developed a bioassay based on the denervated cat heart, responding to what he termed the "law of denervation" (meaning by that that the end-organ became sensitized to its chemical mediator). By this assay he studied the challenges that aroused the secretions of the adrenal medulla, dampened some of the vegetative visceral functions, and prepared the animal for flight or fight. Many years later he extended these observations of the adrenal medulla to include the mediators liberated elsewhere at active nerve endings and laid the groundwork for modern neurochemistry. These studies led Dr. Cannon to write his book *Bodily Changes in Pain, Hunger, Fear and Rage* which was published in 1915 and led directly to the studies of traumatic shock during World War I.[4]

He considered these bodily changes as signs of a perfect internal organization that he later called "The Wisdom of the Body."[5] For him, this carried both a teleologic and a sociologic message. His studies led several generations of physiologists to study the interaction between epinephrine, nor-epinephrine and the blood vessels, leading in turn to concepts of maintenance of blood pressure during reduced blood volume by alterations in peripheral resistance, and by the redistribution of blood flow with appropriate alterations in heart rate, right heart filling pressures, and cardiac output.

Although the predominant effects of "adrenine" secretion were perceived as hemodynamic and vaso-active, Cannon clearly discerned a variety of metabolic changes that resulted during the period of challenge or injury. He noted changes in blood coagulation and was particularly intrigued by the rise in blood sugar. He quoted Claude Bernard's work as having demonstrated that sugar could be produced *de novo* within the organism. Bernard had shown that blood leaving the liver contained more glucose than when it entered. Cannon wrote that "the conclusion was justified that the excess glucose was derived from the liver." These reactions, not only glycogenolysis but especially gluconeogenesis from amino acids (the latter arising from muscle in large quantities after severe injury) appear now to be at the heart of the post-traumatic metabolism as we witness it today. Did Cannon conceive any possibility that his "adrenines" could drive this metabolism after injury?



Before moving on to current concepts of catecholamines as the triggers or drivers of post-traumatic catabolism, let us review the story of this benign, thoughtful, Middle Western scientist's, stormy clinical contemporary, a Bostonian surgeon.

E.A.C. of Ponkapoag

Ernest Amory Codman was born in 1869 in Boston, the descendant of a minister of the gospel who was famous for authoritarian management of his parish and noted for his low opinion of the sermons of others. If Cannon was a typical Middle Westerner, surely Codman was a typical Bostonian. While Cannon was attending high school in St. Paul, Codman was preparing at St. Mark's. He graduated from Harvard College in 1891 and went straight on to Harvard Medical School where he undertook a rather modern curriculum, including an elective for travel abroad during his third year. He interned before graduation and received his M.D. degree in 1895. He then became an instructor in anatomy and because of his curiosity about the new rays that came out of glass tubes, he began to work with Professor Henry Pickering Bowditch. His first work in Bowditch's laboratory — taking X-rays!

Walter Cannon and Amory Codman must have known each other because they attended Medical school at about the same time and had several common interests, including the improvement of hospital records and the case system of teaching. But their closest and unique common interest, whether in friendship or in rivalry, was in the early use of X-rays in the laboratory of Professor Bowditch.

Roentgen's description of some new rays that emerged from a Crookes' tube was published in the late autumn of 1895. By the spring of 1896 Dr. Codman had obtained the use of a Crookes'

X-ray of Professor Bowditch's right elbow taken in 1899 by Dr. Codman, showing the "reb" bullet fragments from the engagement at New Hope Church in May 1864. Above is shown the Freudian slip attached . . . "Marry Christmas". The wedding of Dr. Bowditch's niece to Dr. Codman took place a few months later.

tube and by the summer of 1896 he had made a whole atlas of X-rays of the human skeleton. This atlas is now to be found in its first (and last) edition in the Rare Books Room of the Countway Library.*

In the course of these studies, Codman described the fracture of the carpal scaphoid and commenced his studies of the shoulder joint. In that very first year he took an X-ray of his boss' arm and demonstrated the rebel bullet that had lodged near his elbow when the Professor took a minié ball in the Battle of New Hope Church. Codman was so pleased with this picture that he made it into a Christmas card and sent it to the Professor. At that time he was courting the Professor's niece. The Christmas card, a small bit of paper preserved in the Countway, was surely a Freudian slip: "Marry Christmas . . . " Two years later he married Katherine Putnam Bowditch.

As Codman himself stated, it required neither imagination nor originality to place a hand or a foot in front of the tube and turn on the current. Although he made these first X-rays at the Harvard Medical School (and *not* at any one of the hospitals) he never claimed any particular priority. He mentioned at the time that so many people were taking X-rays that at every meeting new discoveries were reported simultaneously by several different people, and any claims for priority were absurd.

In the laboratories of Professor Bowditch down by Berkeley and Clarendon Streets, where insurance skyscrapers are now being built, Cannon scurried around with his geese, cats, and dogs, bismuth mush on board, while Codman gulled his contemporaries into exposure before The Tube, both men happy and displaying great enthusiasm. Sadly, Cannon was badly injured by radiation during those years, though Codman appeared to escape scot free.

Did the two men compete for the use of The Tube? Almost fifty years later, Dr. Cannon wrote* to Dr. John Fulton at Yale, (under date of April 16, 1942) some details of this early experience with the new rays. "The early apparatus used in Boston came altogether from Swett and Lewis of Bromfield Street. It was their tubes which we used in the early work by Dr. Codman and by me. They were trifling affairs compared to the modern tubes and fairly soon became useless because of a hole burned through the very thin anode. I was not at any time associated with Walter Dodd. Dr. Amory Codman, however, brought a tube, a large secondary coil, and an interrupter to the Medical School early in December, 1896. The apparatus was set up in the small prosectors' room in the anatomy department of the Medical School at the corner of Boylston and Exeter Streets. It was thought best to try first a small dog as a subject and I was commissioned to get a card of globular pearl buttons for the dog to swallow. Dr. Dwight, professor of anatomy, and Dr. Bowditch, Dr. Codman and I were the only witnesses. We placed a fluorescent screen over the dog's esophagus and with the greenish light on the tube shining below we watched it glow on the fluorescent surface. Everyone was keyed up with tense excitement. It was my function to place the pearl button as far back as possible in the dog's throat so he would swallow it. Nothing was seen! As intensity of our interest increased, someone exploded 'Button, button who's got the button!' Then we all broke out in a sort of hysterical laughter."[6]

The laboratory aspect of Codman's life was, however, subordinate to his growing concern about the low quality of surgical care and the high quantity of surgical incomes. This interest had stemmed, in turn, from an early interest in the matter of the patient's record and case study method of teaching. Again there is a coincidence, since Cannon, during his brief period as a clinical consultant in the early days of the Brigham Hospital, wrote a good deal about the nature of the patient's record and the gathering of clinical information.

Following his marriage, Codman commenced his clinical work at the Massachusetts General Hopsital on the service of Dr. Harrington to which he had been appointed in 1897. He became interested in the evaluation of the end results of surgical treatment (the "Product of a Hospital") which he compared to the products of a factory that might make such things as shoes or soap.[7] An interest in end-product analysis was clear in his writings by 1900, but it grew stronger and it became such an obsession that by 1910 it occupied all of his time. He was made a full-fledged member of the staff of the MGH in that year, 1910. He had also been made a member of the Society of Clinical Surgery, recently founded by Harvey Cushing. There Codman came to know the Mayo Brothers and other surgical luminaries of the time. He attended meetings of the Society in Europe. He states that the idea of having a national organization to raise the quality of hospitals (a sort of hospital standardization committee) was born in conversations at that time. This was closely associated with the founding of the American College of Surgeons.[8]

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* Through the kindness of Mr. Richard Wolfe and Ms. Janet Regier the author was given access to all the Cannon and Codman memorabilia in the Countway.

* The letter quoted above was made available to us by Dr. A. C. Barger. It is a pleasure to report that he is now at work on the long-awaited biography of Walter Cannon.

E.A.C.:"He became adapted to the realizatio politician. 'I have suffered somewhat from c been thinking or saying something or anothe

Codman's Concern for Quality and a New System of Outcome Analysis

Codman's interest in the surgical record traces back to his student work with Harvey Cushing on the anesthesia record, a development that grew out of Cushing's dissatisfaction with the carelessness of surgical anesthesia and which was immediately translated into a standard form that we still use today. [9,10] Codman carried this interest to the idea of hospital standardization and he states that in a taxi ride in London (at a meeting of the Society for Clinical Surgery) he talked with one of the senior members, Dr. Edward Martin of Philadelphia, about his ideas for a stricter end-result system based on some sort of a national organization for evaluation of patients' records. This idea of Dr. Codman's, as well as the germination of the American College of Surgeons, became active political issues at the meetings of an organization called the "Clinical Congress of Surgery" whose first meeting was held in 1910 under Dr. Franklin Martin of Chicago. Two committees were formed. One was under Dr. Franklin Martin to "consider the formation of an American College of Surgeons patterned after the Royal College of Surgeons in London." The other committee was under Dr. Ernest A. Codman of Boston, the "Committee for the Standardization of Hospitals." It is of historical significance that these two committees were regarded as of equal importance and parallel activity. The reports of both were read at the Clinical Congress in 1913 and Martin's led directly to the founding of the American College of Surgeons on May 5 of that year.[11,12]

Ernest Amory Codman
1869-1940

Codman also read his report on surgical quality control. It was quite outspoken, critical and even abrasive, deriding hospitals that did not have a stiff system of record review. About four years later the "Committee for the Standardization of Hospitals" became a standing Committee of the American College. This led directly to the formation of the Joint Commission of Accreditation of Hospitals which in turn has become one of the strongest agencies for improvement of the quality of medical care, in this country or indeed in the world. At the very moment of success with his Committee, Dr. Codman's participation suddenly disappeared. A brief ten years later, on narration of the events at the founding of the American College, one of the senior officers made no mention whatsoever either of Dr. Codman or of his Committee. Sic transit gloria!

One can understand, if not condone, the medical politicians of the day in "dropping the pilot." Codman was outspoken, frank, and combative, and was as apt to be critical of them as of others. Coming from a secure family background in Boston, he had no fear of Philadelphians or Chicagoans or anyone else, and he told them exactly what he thought of them. Furthermore, he had elicited no response whatsoever from his beloved Massachusetts General Hospital, and was engaged in a running battle with the director and trustees of that hospital because they would not accede to his wishes for a systematic record review and end-result system.

Therefore, in a spirit of rebellion, he had founded his own hospital on Pinckney Street (in 1911). There was no requirement for a "Certificate of Need." He could carry out his own operations just as he wished. He could study and report and publicize his end results in any way that he wanted. He was as brutally critical of himself as of others. He classified and published all his own errors of surgical care using a series of error-classifications depending upon whether the difficulty arose from an error in technique, of judgment, of diagnosis, or whether a sad outcome merely represented the end of an unmitigated disease process.*

Those many friends who knew Amory Codman well, and enjoyed hunting and fishing with him, considered him a kind and sweet person. But to those whom he criticized, he was a firebrand whose frictions caused far more heat than light.

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* There is a lesson here about hasty interpretation of surgical data in a changing scene over the span of years; many of the operations that Codman performed would, today, be regarded as totally unnecessary and dangerously meddlesome.

...at he would never be a successful surgical ...nse of isolation because I have always ...ith which other doctors did not agree.' "

Dr. Codman had been made chairman of the surgical branch of the Suffolk District Medical Society. Possibly some thought that this would keep him happy and silent. But because of his criticism of the MGH, he was far from silent; the pot was boiling, and an explosion was inevitable. He held a meeting at the Boston Medical Library on January 6, 1915. That was in the same year that the Boston Surgical Society was founded and possibly this meeting and its aftermath had something to do with its founding.

Dr. Codman tried to interest a number of eminent persons in appearing on the program. Not many responded. This hardly could have come as a surprise. Therefore, he invited a person who was always glad for a chance to speak in public, the young mayor of Boston, one James Michael Curley. Jim Curley had recently been elected to the mayoralty as a reform candidate; vigorous, youthful, and full of zeal, he preached against any sort of political skullduggery. He was regarded as the herald of a new age: an Irish politician who would clean up Boston politics!

Towards the end of the meeting, which was quite crowded in a small room known as Ware Hall (reincarnated as the Ware Room of the Countway Library) then at the Boston Medical Library #8 The Fenway, Dr. Codman showed his trump card. It was a large cartoon portraying the public as an ostrich, its head hidden in the sand to avoid witnessing the horrible scene, laying golden eggs which were being kicked to the Back Bay surgeons while the president of Harvard (Abbott Lawrence Lowell) and the trustees of the Massachusetts General Hospital as well as the dean of the Harvard Medical School (Geoffrey Edsall) looked down with querulous but tolerant comment.

The explosion occurred. There was an immediate uproar; many left the meeting stamping and cursing. Codman was dropped from his position as instructor in surgery at the Harvard Medical School (to which he had been appointed only a year or so before) marking one of the shortest tenures on record in that particular rank. Anticipating a negative reaction from the trustees, he had already resigned from the staff of the Massachusetts General Hospital; he thus successfully outwitted the trustees for the first time. A year or two later he wrote a letter to the board of trustees suggesting that they select as chief of surgery a man who was truly interested in evaluating and upgrading the quality of surgical care, such a person being, for example, Dr. Ernest A. Codman.

Dr. Codman enjoyed several hobbies quite frequently pursued, both then and now, by Boston surgeons. He found this a particularly good time to go off on another hunting and fishing trip. The advent of World War I also constituted a change of scene, change of attention, and a cooling-off period for medical politics. Codman went into the service and served his country in the coast defense and at a fort in the West. As soon as he returned from the war he went right back to work in surgery, trying to improve surgical care. Time had passed, some opponents had come over to his views, and things were much more peaceful.

The Harvard Medical School gave him a room for his work in the early 1920s and there he began his studies on bone sarcoma. From this he set up the Registry of Bone Sarcoma, a unique service later earning him the gold medal of the American Academy of Orthopedics.[13]

By 1929 the MGH had reinstated him as a consulting surgeon. He published his great book on the shoulder in 1934.[14] It is a remarkable book, sort of a "sandwich" as he termed it. The central portion concerns the shoulder joint and brings into sharp focus, for the first time, the nature of bursitis and tendonitis. The lengthy prologue and epilogue surround this meaty insert with

From Dr. Codman's work on surgical errors. This shows his initial classification of errors (1908), later refined.

All results of surgical treatment which lack perfection may be explained by one or more of the following causes:

Errors due to lack of technical knowledge or skill	E-s
Errors due to lack of surgical judgment	E-j
Errors due to lack of care or equipment	E-c
Errors due to lack of diagnostic skill	E-d
These are partially controllable by organization.	
The patient's enfeebled condition	P-c
The patient's unconquerable disease	P-d
The patient's refusal of treatment	P-r
These are partially controllable by public education.	
The calamities of surgery or those accidents and complications over which we have no known control	C
These should be acknowledged to ourselves and to the public, and study directed to their prevention.	

unleavened autobiographical notes about his life work and his concern for the upgrading of surgical care. His bitterness about the founding of the American College of Surgeons had subsided and he even dedicated one of his books to the Fellows of the American College. He became adapted to the realization that he would never be a successful surgical politician and he wrote, "I have suffered somewhat from a sense of isolation because I have always been thinking or saying something or another with which other doctors did not agree."

In the light of present day events, it is an easy matter for us to appreciate the remarkable foresight of this iconoclastic man. Today's concepts of the problem oriented record,[15] peer review panels, Professional Service Review Organizations,[16] the Bennett Amendment, HR-1, Medical Foundations, Manpower Surveys,[17] and the whole concept of upgrading the quality of medical and surgical care by having doctors examine each other's work in a realistic and objective way, traces back to Codman. Only a few persons today recognize the fact that the Joint Commission on Accreditation of Hospitals owes its origin to Ernest Amory Codman. When we use the words "Peer Review," "Quality Control," "Hospital Accreditation," "PSRO" or "JCAH" we are merely nodding in the direction of that thorny Bostonian.

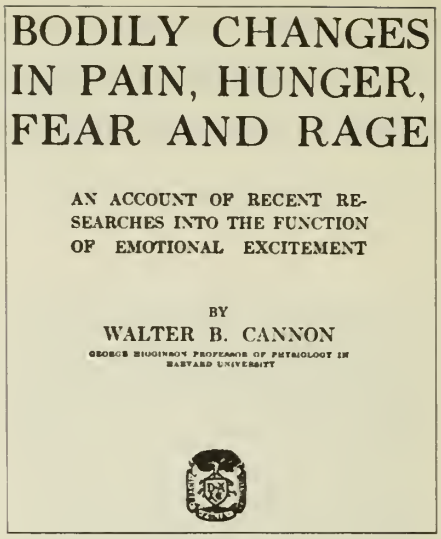
Cannon's Catecholamines and Surgical Metabolism

During those years of social strife, rejection and rebirth by Codman, the course of his colleague, Dr. Cannon, was entirely different. It was rather smooth and truly spectacular. Walter Cannon was recognized throughout the world and given every known award except the Nobel Prize, for which he was surely well qualified. Cannon lived to become one of the greatest American scientists of his age. To update the surgical meaning of his work might seem to be quite unnecessary in view of our every day use of epinephrine, nor-epinephrine, neosynephrine, autonomic blockade and all the new drugs that act on alpha and beta receptors. Actually, this update is most appropriate because the hemodynamic neuromediators have turned out to have remarkable metabolic significance.

As mentioned previously, Claude Bernard was the first to discern the process that we now call "gluconeogenesis."[18] Francis Benedict working in the Carnegie Lab (now occupied by the Children's Hospital) at about the same time as Cannon and Codman, had shown by his studies of starvation that large amounts of body protein and fat are mobilized to provide energy substrates for physiologic oxidation when external intake ceases.[19] Cuthbertson, working a few years later, confirmed the fact that this wasting was much more rapid after trauma (as it previously had been shown after typhoid fever) and described the phenomena in terms of nitrogen loss.[20] Benedict had shown the extent of tissue wasting that occurred in forty days of starvation. By 1948 it was clear that such changes could occur in only ten days after injury, particularly if that injury was very severe or combined with infection.[21] But the endocrine control of such changes was far from clear.

When Banting and Best had first isolated and described insulin, they had shown that when crude insulin was given there was an initial hyperglycemic effect.[22] Within a year or two this was shown to be the result of a separate hormone soon termed glucagon. Now, methods for the isolation, characterization and measurement of glucagon have become available.[23] It has become quite clear that Cannon's "adrenines" inhibit the production and activity of insulin and stimulate the production and action of glucagon. The net effect is to release amino acids from muscle, and convert them to sugar.

It would have brought great satisfaction to Walter Cannon to learn that those "neuro-humors" that he studied so extensively also drive body metabolism as well as controlling blood vessels and blood flow. He might have enjoyed some wry satisfaction from the fact that the adrenal corticosteroids, which achieved such prominence in the years after his death, have now been shown to act largely as synergizers that permit the metabolic effects of glucagon and the catecholamines to reach their maximum after severe injury.


BODILY CHANGES IN PAIN, HUNGER, FEAR AND RAGE

AN ACCOUNT OF RECENT RESEARCHES INTO THE FUNCTION OF EMOTIONAL EXCITEMENT

BY

WALTER B. CANNON

GEORGE HIGGINSON PROFESSOR OF PHYSIOLOGY IN HARVARD UNIVERSITY

Title page of Dr. Cannon's monograph

The striking metabolic changes of severe injury are seen also in shock, burns and sepsis. They are not observed after ordinary uneventful clean elective surgery of modest proportion. The human body has to be hit, and hit hard, if it is to elaborate large amounts of catecholamines over the period of several days or weeks, to produce the extreme body wasting that has been a mystery for so many years. Severe accidents with multiple fractures, combat injuries, massive operations (cardiac surgery, cancer operations), peritonitis, vascular thrombosis and massive body burns are the very prototype injuries where the catecholamine-induced body wasting is so severe. The mission of surgical care is to reduce and repair injured anatomy, drain sepsis, restore blood volume, and thus permit the injury components to abate so that metabolism can revert towards tissue synthesis and rehabilitation.[24] By these surgical means, many ancient, others new, and aided by parenteral fluids and foodstuffs, injury and infection are survived that only a few years ago would have been lethal.

An understanding of the role of catecholamines as conceived by Cannon, secreted in response to "fight or flight" (especially where there is severe injury, shock, or tissue anaerobiosis) underlies most of modern surgical care; their abatement speeds recovery and rehabilitation, and lessens tissue wasting.

Coda

Thus we come to the end of my "tale of two heroes." The story of their influence will continue for many decades to come. Despite the polemics and priority arguments, science is always more peaceful than politics. It has been far easier to incorporate Cannon's ideas into the applied biology of surgery than it has been to implement Codman's ideas of end-result analysis into any sort of national reality. Surgical care in the teens of this century was a relatively simple "linear" process; modern intensive care in surgery has become a most elaborate matrix of interactions between people, electronic devices, infusion mixtures, operative procedures, and a bacterial interaction between doctor and patients. While surgery can claim its many triumphs, the opportunities for error have been multiplied a thousand-fold. Every patient that emerges from intensive care does so despite many misadventures. It seems unlikely that ordinary review boards or lay administrators will ever understand this sort of clinical complexity. In fact, the current legislation to set up a system of PSRO may end up by establishing a new bureaucracy far more pernicious than any of the petty hospital trusteeships that Codman fought with such zeal.

After death, both of these pioneers were memorialized by their aging and surviving admirers, according to what each particular writer perceived as being important for his own interests.

Cannon's obituaries always mentioned the autonomic nervous system, but they were quite divided in their understanding of his work on shock. In fact, Sir Henry Dale stated that Cannon proved that shock was "toxic"[25] while Dr. Howell went along with Cannon's own ideas (as expressed in his autobiography) indicating that shock was largely due to loss of blood.

And as to Codman, some of his obituary writers of the more polite and proper Bostonian professional school omitted completely any mention whatsoever of his lifelong crusade to improve the quality of surgical care and the somewhat abrasive methods he used to improve the work of hospitals.[26] They devoted themselves entirely to Codman's less controversial achievements, such as the Bone Sarcoma Registry or his book, *The Shoulder*. One "J. H." (surely John Homans!) wrote the obituary for the *New England Journal of Medicine*.[27] He devoted the entire allowable wordage to a clarion call for everyone to understand Dr. Codman's explosive impact on ethics and on the quality of medical and surgical care.

Looking back on all this now, fifty years after the initial major impact of their work, and thirty years after the death of these two men, it is evident that both surgery and medicine owe a debt to them for many ideas including their coincidental and extraordinary development of the use of the X-ray and improvements in the hospital record. Cannon and Codman's ideas of human biology, and the concept of a public obligation for quality control throughout medicine, have endured.

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1. Sadove, M. S.: A look at narcotic and non-narcotic analgesics, *Postgrad. Med. 49*:102, June 1971.

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Usage in Pregnancy. Safe use of Talwin during pregnancy (other than labor) has not been established. Animal reproduction studies have not demonstrated teratogenic or embryotoxic effects. However, Talwin should be administered to pregnant patients (other than labor) only when, in the judgment of the physician, the potential benefits outweigh the possible hazards. Patients receiving Talwin during labor have experienced no adverse effects other than those that occur with commonly used analgesics. Talwin should be used with caution in women delivering premature infants.
Acute CNS Manifestations. Patients receiving therapeutic doses of Talwin have experienced, in rare instances, hallucinations (usually visual), disorientation, and confusion which have cleared spontaneously within a period of hours. The mechanism of this reaction is not known. Such patients should be very closely observed and vital signs checked. If the drug is reinstituted it should be done with caution since the acute CNS manifestations may recur.
Usage in Children. Because clinical experience in children under 12 years of age is limited, administration of Talwin in this age group is not recommended.
Ambulatory Patients. Since sedation, dizziness, and occasional euphoria have been noted, ambulatory patients should be warned not to operate machinery, drive cars, or unnecessarily expose themselves to hazards.

Precautions: *Certain Respiratory Conditions.* Although respiratory depression has rarely been reported after oral administration of Talwin, the drug should be administered with caution to patients with respiratory depression from any cause, severely limited respiratory reserve, severe bronchial asthma and other obstructive respiratory conditions, or cyanosis.
Impaired Renal or Hepatic Function. Decreased metabolism of the drug by the liver in extensive liver disease may predispose to accentuation of side effects. Although laboratory tests have not indicated that Talwin causes or increases renal or hepatic impairment, the drug should be administered with caution to patients with such impairment.
Myocardial Infarction. As with all drugs, Talwin should be used with caution in patients with myocardial infarction who have nausea or vomiting.
Biliary Surgery. Until further experience is gained with the effects of Talwin on the sphincter of Oddi, the drug should be used with caution in patients about to undergo surgery of the biliary tract.
Patients Receiving Narcotics. Talwin is a mild narcotic antagonist. Some patients previously given narcotics, including methadone for the daily treatment of narcotic dependence, have experienced withdrawal symptoms after receiving Talwin.
CNS Effect. Caution should be used when Talwin is administered to patients prone to seizures; seizures have occurred in a few such patients in association with the use of Talwin although no cause and effect relationship has been established.

Adverse Reactions: Reactions reported after oral administration of Talwin include *gastrointestinal:* nausea, vomiting; infrequently constipation; and rarely abdominal distress, anorexia, diarrhea. *CNS effects:* dizziness, lightheadedness, sedation, euphoria, headache; infrequently weakness, disturbed dreams, insomnia, syncope, visual blurring and focusing difficulty, hallucinations (see *Acute CNS Manifestations* under **WARNINGS**); and rarely tremor, irritability, excitement, tinnitus. *Autonomic:* sweating; infrequently flushing; and rarely chills. *Allergic:* infrequently rash; and rarely urticaria, edema of the face. *Cardiovascular:* infrequently decrease in blood pressure, tachycardia. *Hematologic:* rarely depression of white blood cells (especially granulocytes), usually reversible and usually associated with diseases or other drugs which are known to cause such changes, moderate transient eosinophilia. *Other:* rarely respiratory depression, urinary retention, toxic epidermal necrolysis.

Dosage and Administration: *Adults.* The usual initial adult dose is 1 tablet (50 mg.) every three or four hours. This may be increased to 2 tablets (100 mg.) when needed. Total daily dosage should not exceed 600 mg.
When antiinflammatory or antipyretic effects are desired in addition to analgesia, aspirin can be administered concomitantly with Talwin.
Children Under 12 Years of Age. Since clinical experience in children under 12 years of age is limited, administration of Talwin in this age group is not recommended.
Duration of Therapy. Patients with chronic pain who have received Talwin orally for prolonged periods have not experienced withdrawal symptoms even when administration was abruptly discontinued (see WARNINGS). No tolerance to the analgesic effect has been observed. Laboratory tests of blood and urine and of liver and kidney function have revealed no significant abnormalities after prolonged administration of Talwin.

Overdosage: *Manifestations.* Clinical experience with Talwin overdosage has been insufficient to define the signs of this condition.
Treatment. Oxygen, intravenous fluids, vasopressors, and other supportive measures should be employed as indicated. Assisted or controlled ventilation should also be considered. Although nalorphine and levallorphan are *not* effective antidotes for respiratory depression due to overdosage or unusual sensitivity to Talwin, parenteral naloxone (Narcan®, available through Endo Laboratories) is a specific and effective antagonist.

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Legislating Health Care: A Look into the Near Future

by Jack R. Ewalt, M.D.
Senior Associate Dean for Clinical Affairs, HMS

There are two classes of major legislation before Congress that would seriously affect medical schools and hospital operations: bills concerning health manpower, and bills providing for comprehensive health care planning. All of them share an obvious intent to improve the distribution of medical and other health care facilities in the US, particularly to improve the availability of such services for the underprivileged, poor, rural and other underserved populations. A second intent is to increase the amount of primary or family-type medicine available to the public, especially in the underserved areas.

Of the two areas of legislation, our immediate interest is in the health manpower bills, since it is these that have the more direct effect on medical schools: Senate Bill No. 3685, the **Beall Amendment** to the defeated Kennedy Bill, and House Bill No. 17084, the **Rogers Bill.** (*Ed. Note:* At the time this article was written, the two bills were in conference committee. When the 93rd Congress ended, they had not yet been reported out. It is expected that in the 94th they will be reintroduced and a new health manpower act will become law.) It is reasonably certain that the common elements of the two bills will appear in the final legislation written by the House and Senate conference committees, unless we react to them and do what we can to improve them prior to their passage.

Before delving into the bills' provisions in detail, I have briefly outlined Harvard's major objections to them as they are presently constituted.

The **Beall Bill** has two features that we at HMS would find difficult to comply with. The requirement that we set up an independent primary care department of equal size to other major departments would cost us more than the funds we would receive from capitation grants, and would make it uneconomic for us to attempt to comply. We also object to its requirement that 25% of our student body volunteer or be selected to sign up for obligated service in underserved areas, rather than sharing equal exposure as in the **Rogers Bill.** Our students by vote agree that all students should have equal jeopardy.

We could live with the **Rogers Bill,** aside from its required geographic distribution of residency programs, and some minor problems in further bolstering our remote area training centers. We have personal objections to its provision that all students be required to take a loan to pay back our capitation grant. It does not provide that the students shall decide by lottery, or other method, who shall work in a service corps to repay this obligation. As the bill is presently constituted, the well-to-do student could pay off the loan in cash, while the student with a family or somewhat in debt, would be obligated to serve in one of the National Health Service designated underserved areas. The geographic distribution of postgraduate training blocks it requires would obviously work a great hardship on the large training centers, such as Boston, New York, Philadelphia, Baltimore, Washington, D.C., Denver, Chicago, Los Angeles, and San Francisco, as well as sites in other states. If the purpose is to serve underserved areas by obligating physicians to work there because of assistance to their schools, the areas would be best served if the residency training programs competed as they do now, so that the best quality of education would be assured to the resident. Assignments should be irrespective of where training was received.

Both bills attempt to control the number of foreign medical graduates by limiting the number of residency blocks available. It would seem more effective to tighten the immigration laws in lieu of this awkward arrangement. Finally, both bills direct curriculum content. We object to curriculum planning by law.

I. Increased health care for medically underserved areas

- *National Health Service Corps*

Both the **Beall and Rogers** bills state that the already existing NHSC will be expanded and will offer scholarships to medical students covering their tuition and expenses. These funds must be repaid with service as salaried NHSC officers, in medically underserved areas or other places as designated by the Secretary of HEW, on a year of service per year of scholarship basis.

The **Beall Bill** also provides that these NHSC officers may enter into private practice arrangements in areas designated by the Secretary and pay their own salaries from their earnings, with the excess to be returned to the Secretary's office. It also offers means of subsidizing the establishment of a practice if a person wishes to remain in

an underserved area after completing the obligated service.

The **Rogers Bill** provides for a National Advisory Council on the NHSC, made up of professionals and consumers. Under this bill, an area may initiate a request to be designated an NHSC area for assignment of personnel. These initiatives may come from state health agencies, the local government, or any district or state medical, osteopathic, or dental society. The applicant community must agree to develop plans for comprehensive health planning and care. It also provides that NHSC service be deemed active military service for the purpose of all rights, privileges, immunities, etc.

- *Service as a precondition for capitation grants*

Personnel for service in medically underserved areas is also obtained through preconditions for receipt of capitation grants by medical schools.

Under the **Beall Bill,** 25% of the students accepted must, as a condition prior to admission, volunteer to enter into a written agreement with the Secretary of HEW to practice for two years in areas designated by the Secretary as needing health services. (Those also owing service in return for scholarship or other federal assistance can fulfill the two obligations concurrently.) It further provides that if the Secretary finds that in any year the number of physicians needed will not be met by the 25% clause, he or she may, with the agreement of each school affected, raise the number obligated to serve to 50%. However, if this is so, the Secretary may also raise the capitation for that year by 10% and, if necessary, may obtain these extra funds by reducing on a pro-rata basis, funds available to other schools that are not affected by this paragraph.

Under the **Rogers Bill,** *all* students must sign an enforceable agreement to repay the government the capitation funds, either in money or through service in underserved areas, on a one year's service for one year's funding basis. The capitation funds thus become, in effect, enforced no interest loans. The bill leaves undetermined, however, the percentage of students from whom service is to be required, as well as the procedure whereby specific individuals will be chosen for service.

- *Remote area health education centers*

The **Rogers Bill** requires that each medical school establish a training center remote from the main facility, using resources from the main center including at least 25% of the capitation grant funds and substantial participation by the central core faculty in teaching and consultation. Faculty will also come from doctors and dentists in the locale of the remote center. More than one school may combine to establish such a center for joint use.

Also, students at the main center must spend an aggregate of six weeks during the third or fourth years in training in such a remote center, although the major portion of training shall remain in the central facility. (HMS's current peripheral arrangements would probably satisfy all parts of this, except perhaps the budget requirement).

Each of these remote area health education centers must have an advisory board made up of people from the community, rather than professionals.

- *Geographic distribution of residency programs*

The **Rogers Bill** directs the Secretary of HEW to insure that the first year positions in medical residency training programs will be distributed equitably geographically throughout the US.

- *Admission of students from underserved areas*

Under the **Beall Bill,** medical schools must give special consideration to individuals applying from areas designated as medically underserved.

II. Increased training programs and practitioners in primary care specialties

- *Capitation preconditions and incentives*

The **Beall Bill** requires that a medical school, in order to receive federal capitation funds, must establish an administrative unit which may be a department, division, or other unit to provide clinical instruction in family medicine or comparable primary care as determined by the Secretary which will:

(a) be comparable to other academic administrative units for other major clinical specialties in the school,
(b) be responsible for directing a program of the curriculum for each member of the student body engaged in a program leading to the degree of Doctor of Medicine,
(c) employ a number of full-time faculty that is determined by the Secretary to be sufficient to conduct clinical instruction required by this clause, and to be comparable to the number of faculty assigned to other major clinical specialties by the school,
(d) administer a three-year approved graduate training program in family practice in 1975 that shall be not less than 10%; in 1976 not less than 15%; in 1977 not less than 20% of the total postgraduate physician training positions established by or affiliated with the school; or as an alternate, administer a comparable postgraduate training program in the provision of primary care as defined by the Secretary which shall make available postgraduate training positions equal in three successive years to not less than 35%, 40%, and 45% respectively of total postgraduate physician training positions.

The **Beall Bill** offers medical schools an additional incentive to encourage entry into primary care specialties (general internal medicine, family medicine, and general pediatrics). Schools showing that at least 50% of their previous year's graduates are serving residencies in these areas will continue to receive capitation funds of $2500 per student for the next three years. Otherwise the funds decrease to $2350 in the second year and $2200 in the third.

The **Rogers Bill** offers no such incentive. Capitation declines from $2100 in the first and second years to $2000 in the third.

- *Federal regulation of residencies*

Both the **Beall and Rogers** bills give the Secretary of HEW authority to approve residency programs and to control the number and type of residencies

available. The **Rogers Bill** specifically directs the Secretary to give particular attention to the need for residency training in the primary care specialties.

The **Rogers Bill** offers the Secretary the alternatives of setting up a medical residency training accrediting agency within the Secretary's office, or of contracting out this function to liaison agencies, including those already existing.

- *Special financial assistance*

The **Beall Bill** establishes Lister Hill Scholarships in family medicine, although only a small amount of money is authorized. The maximum of $240,000 annual income increases from $60,000 up to this figure over a four-year period.

III. Authority for administration of the bill

Under the **Rogers Bill,** the Secretary of HEW may delegate authority to administer any program in this title to a central or regional office of HEW. But only the central office can review grants or contracts and dispense appropriate funds. The **Beall Bill** contains a provision for delegation of authority only to the central office.

IV. Increased trainees in all health professions

- *Construction of teaching facilities*

Both the **Beall and Rogers** bills authorize matching grants for construction of teaching facilities for health personnel, giving preference to underserved areas. Both offer 80% government funds to 20% from local sources, with the **Rogers Bill** adding a provision for a 90% match in exceptional cases.

- *Increased medical school admissions*

The **Beall and Rogers** bills both require that medical school size be increased by 10% if each class is under 100, or by 5% or 10 students, whichever figure is smaller, if the class is over 100. Under the **Rogers Bill,** in lieu of expanding school size, a physician assistants program may be instituted.

- *Increase in allied health training*

The **Beall and Rogers** bills both provide extensively for the training of a broad spectrum of allied health personnel.

V. Financial aid to students

In addition to the already mentioned provisions of both bills for NHSC scholarships-for-service, capitation grants, and stipends for allied health training, the **Rogers Bill** provides for student loans, covering the cost of tuition, plus $2500 a year. These loans are made according to section 740 of the Public Health Service Act (the student loan law under which we now function).

VI. Limited number of foreign medical graduates

The **Beall Bill** limits the percentage of foreign medical graduates in affiliated postgraduate training positions, to 40% at the time of application, 35% in the second year, and 25% in the remaining years. In addition, it requires that foreign medical graduates pass Parts I and II of the National Board of Medical Examinations, or the Federal Licensing Examination (a task impossible for most foreign medical graduates).

The **Rogers Bill** limits the number of first year residency positions to 125% of the estimated number of American medical school graduates. (Currently, available residencies equal about 130-135% of the number of American graduates.) The 125% formula would in effect allow foreign graduates 20% of all residency positions offered.

Health Manpower Legislation: A View from the Dean's Office

On November 5, 1974, Dean Robert H. Ebert conducted a meeting with Harvard Medical School students to apprise them of impending health manpower legislation and its implications for medical education. For their part, the students had composed a resolution that they requested Dr. Ebert convey to a meeting of the deans of twelve private medical schools in Chicago, which took place on November 12, 1974. In light of these measures, the *Bulletin* staff thought it advisable to interview Dr. Ebert and to stimulate further discussion of what the various bills portend. Dr. Ebert's remarks were made on December 5, 1974, prior to the close of the ninety-third Congress and to the developments that have since occurred. The full text of the student resolution, referred to in the interview, reads:

Whereas as future physicians we recognize the great disparity of health services and health status among different populations within the U.S.,

And whereas we recognize the failure of current federal health programs to attract health services to scarcity areas because since 1965, approximately $3.4 billion in federal funds has been given to health schools and loaned to 170,000 health students but only forty-two doctors, eighty-two dentists, and twenty-two optometrists have sought forgiveness of their loans through work in shortage areas,

And whereas we feel it is discriminatory to require only students in financial need to serve in shortage areas, we feel in principle that all health students should serve in health scarcity areas for a period after their training,

Therefore, be it resolved, that we:
1) Support legislation that would require 100% of all health students enrolled in health schools that receive capitation federal grants beginning January 1975 be eligible to serve for two years in health scarcity areas as repayment because these federal capitation grants significantly reduce tuition paid by students,
2) Urge Dean Ebert to relay this position to the American Medical Association, the Association of American Medical Colleges, and other appropriate organizations.

Q: What prompted the recent meeting between you and the students?

A: It had to do with the current health manpower legislation that is now being considered in both the House and the Senate. Each of the bills in the Senate, the Kennedy-Javits Bill, which was the original one, and the Beall Amendment, which was the legislation finally passed by the Senate, had a requirement for national service. The Beall Amendment had the requirement of eligibility for twenty-five percent of the class admitted, if the school was to receive capitation. The House version, the Rogers Bill, did not require any national service but did require each student to pay back to the federal government the amount of the capitation. In other words, the Rogers Bill means a deferred loan to the student, who has the option of working the loan off by national service. My feeling was that if there was going to be a requirement for national service by some, perhaps a more equitable plan would be to require it of everyone. I wanted to get the reaction of the classes as to how they felt about this; that was the purpose of the meeting. Obviously, nobody wants to have national service a necessity, but the majority of students shared my opinion. Instead of having a requirement apply just for a "voluntary" twenty-five percent — which is obviously a ridiculous kind of requirement anyway — or only for those who because they had had heavy debt loads would be most likely to go into a national health service corps, it should be required of all.

Q: Did you seek a student resolution as the outcome of this meeting?

A: I did not seek it. I just wanted to get a sense from the meeting. But a couple of students had prepared a resolution that was voted upon by a show of hands and subsequently, was sent to all of the students. It was passed out at the meeting. In total, 175 voted in favor of the resolution.

Q: As part of their resolution the students asked that you transmit it to a recent meeting that you had with the deans of twelve private medical schools. How did they respond?

A: They agreed with the general premise, that if some sort of direct or indirect form of national service comes about, because support is tied to it, then it is more equitable to have universal eligibility. The other twelve deans had not spoken to their students about this issue.

Q: Exactly what does the phraseology "to be eligible" mean in the context of the student resolution?

A: The word "eligibility" is in there because it is unlikely that 100 per cent of all students would be called or that there would be positions for all of them. First of all, I think students would be chosen on a voluntary basis. They might volunteer simply because they were interested and they might volunteer because obviously it is a way of repaying the federally guaranteed loans. But then the remainder would be equally eligible, presumably by a lottery.

Q: Do you consider the student resolution also to be Harvard's position?

A: When you speak of Harvard's position, I think it certainly seems to be the general position of the student body. I cannot speak for the whole faculty because it has not been voted on yet and I do not think that will occur because it is difficult to get a formal vote from the entire faculty since it is so large. In general, the reaction I have heard from those who have discussed the matter,

has been similar to that of the students. The administration's position is the same as the students too.

Q: This apparently was the first meeting of an official nature that the Dean's Office has had with the students in nearly three years. Do they seem to want to have more such opportunities as a group to talk with you?

A: I think it was the first meeting we have had to which all classes were invited. Obviously we have met from time to time with individual classes, so that it is not that unique. I asked for this particular meeting and the students were responsive. Probably they would be interested in similar gatherings but only if there is an issue of major importance that affects all students. In other words, I do not think there would be much interest in just having a routine meeting in which there was not a significant issue. Otherwise, we meet largely with individual classes or through the Student-Faculty Committee.

Q: What was the student reaction to the proposed federal legislation? What are your own views regarding these issues?

A: I would say, in general, that the student body has not had a chance to read all this legislation. I would find it surprising if they had a viewpoint to express on the whole range of issues. My personal reaction to the legislation, to all of the bills, is that it is clearly an attempt on the part of Congress to alter the distribution of physicians in the United States and also to alter the distribution among the specialties. They are trying to modify the system of medical care, using support of health schools to do so, which seems to me an indirect way. I would have thought that it would have been better as far as medical schools are concerned, or in terms of legislation, if the problems had been attacked more directly.

Q: How would you prefer that Congress act in trying to make fundamental changes in our health care delivery system?

A: It seems to me that if Congress wants to change the distribution of physicians they should have written laws that did that, rather than to use capitation. I think, for example, that the idea of a national health service corps is a reasonable idea and that it does exist today, in part. And I think it is reasonable to attempt to solve the problem of the maldistribution of physicians. But I find the way in which the bills are written, creating the health service corps, may or may not solve the problem. It does allow for the allocation of physicians to areas where there are shortages, but there really has been no substantial thought given to the supporting services — how this will become institutionalized. It may or may not be a workable system to have people rotate through these areas on a two-year basis.

Q: Do you think that these pieces of legislation will have an effect on medical education at Harvard? Will they produce any long-range change?

A: It depends a great deal on what bill is ultimately passed. Also, what comes out of the implementation of the bills and the regulations that are written. Whatever becomes law will not have any immediate or direct effect on undergraduate medical students. If there were implemented a regionalization of all training and residents, let us say, on some basis of population, so that one trained in the specialties only for a specific region, then it would have a profound effect. Clearly, we do not train in our residency programs only for the area of Massachusetts. If that were interpreted in a way that was to allocate residencies only on a regional basis, it could have a profound effect on all the Boston medical schools.

Q: Several of the bills have a provision for primary care or family practice programs as preconditions to obtaining capitation funds. How does Harvard expect to respond to this?

A: What is asked for varies from bill to bill. The Beall Amendment requires that a school establish an administrative unit which may be a department, division, or other unit to provide clinical instruction in family medicine or comparable family-primary care. That would cause us no great difficulty since we have programs now in primary care. The Beall Amendment also requires that there be a full-time faculty, and again it is not entirely clear whether this is family medicine or primary care, which would be comparable in size to other major clinical specialties. If this were literally interpreted as family medicine and it had to be comparable in size to, let us say, Harvard's department of medicine, we could not comply. It would cost us infinitely more than the amount of capitation. But I would suspect that that would be changed. As far as the other things are concerned, we probably, probably could comply. Again, it is so iffy, we really do not know what the final bill is going to be, and there is enough variation that it will depend on what is hammered out.

Q: How soon after one or the other of these bills is passed into law will some type of program be implemented?

A: It is pretty hard to tell. It depends upon new regulations having to be written and that can take a long time. A great deal will depend upon what the Budget and Management Office and HEW want to do. If they want to implement it rapidly, then they will probably get the regulations out rapidly; if they want to delay it they can. It is really unpredictable.

Q: What have been your experiences dealing with the legislation in Washington itself?

A: What we have done is that I have discussed the legislation with members of Senator Kennedy's staff. I have discussed various parts of the legislative package with Leroy Goldman on Senator Kennedy's Senate Health Subcommittee and he is aware of our feelings about it. I have not talked with Senator Rogers's staff, but Michael Brewer from Charles Daly's University Office of Government and Community Affairs has.

Q: Finally, what do you think are the chances of the bills passing?

A: Our information is that it is unlikely that any legislation will go through this session of Congress (*Ed. note* — it did not pass). It appears likely that it will go through the next, ninety-fourth Congress, and could happen quite rapidly even with modifications that may be added. I suspect that Kennedy will try again to get the original bill he wrote put through rather than the Beall Amendment. I personally prefer his verion of the bill to the Beall Amendment [now the Beall Bill].

To Put a Bit of Yearning into Action

by Eugene L. Herzog '75

The members of HMS Class of 1975 have something else on their minds, in addition to the proximity of graduation and internship and residency programs. There is a poll now in progress to determine if this class will commit itself to a new and unique project. The proposal is to join together as a unified class in a commitment to staff and to support financially a clinic for a medically deprived population. This would be a commitment made now, and carried out over the course of our lives. I, a member of this class, strongly believe and am trying to convince my classmates, with the help of those already committed to the proposal, that the rewards resulting from this enterprise would more than compensate for the difficulties and sacrifices involved; and that *now,* when we are just embarking on our medical careers, is the time to make the commitment and start the ball rolling.

This proposal stems from some recent personal experiences, from my motivations and aspirations as a fledgling physician, and from some hardheaded thinking about the potential of harnessing the skills and energies of approximately 150 doctors for a single purpose.

I have recently returned to HMS from a year's leave of absence (from February 1973 to February 1974), mostly spent in Mexico and Guatemala. This was for me, as it would be for most of my classmates, the first non-academic year of my life since the age of four. It was a chance to do many of the things that my seemingly endless education did not allow time for . . . a very fine year. Originally I had planned to go to Mexico to learn Spanish and then return to work in California with the United Farm Workers in their newly established clinics and in the fields. Instead, after having "downed" a bit of Spanish, both culturally and linguistically, in Cuernavaca, Mexico, I discovered Guatemala and spent some time working and living with an Indian friend and his family on Lake Atitlan and in an unusual clinic and hospital started by an American physician for the Indians of Guatemala.

The specific things I did last year were probably less important than that I had dropped off the academic bandwagon briefly, sampled other ways of life, and reflected upon my own. Too many of us rush through high school, college, medical school, postgraduate training, and then brutally hectic careers without such a respite, spending twice as much time studying glucolysis as thinking about what we really want to do with our lives and what it is we really must do to feel satisfied with ourselves and our careers.

All of us, in choosing medicine as a career, had to respond to the standard admission interviewer's question — why do you want to become a doctor. For me, as I suspect for most of my peers, there are several answers. Basically, I like the biological sciences and working with and helping people. I enjoy responsibility and derive a sense of importance from others depending on me. Also, in medicine the doctor's purpose and the patient's interests are inseparable — you work to make him or her well, and nothing need come between his or her welfare and your role as a physician. Then there are certain implicit reasons, which are also part of my motivation. We live in a country and in a world in which there is a chronic shortage of physicians. Medical school graduates benefit from this in their virtual certainty of finding a job. Medicine may stand alone as a career that provides such security. It is also true that we live in a society that accords physicians enormous status and respect, with inflated incomes to match. Every student who graduates medical school enjoys these advantages.

Many medical students, besides their multiple motivation for being in medicine, would like to involve themselves in different roles as doctors. For example, I do enjoy teaching and research and the stimulation of large academic hospitals. At the same time, I am drawn to private practice and to service in distant or poor areas of the world where my efforts would be more keenly felt and appreciated — where if I did not treat the patient, he or she might not be treated at all. I could enjoy working as a specialist and as a general practitioner. Most Harvard medical students, I think, feel similarly. We face not a dilemma, but rather a plethora of attractive alternatives. As Harvard students, most of us yield to the pressures around us along with our intellectual inclinations, and choose to work in an academic setting as specialists offering highly sophisticated medical care to people fortunate enough to have access to it. Usually dreams of being a doctor in a rural or remote area get lost in the mire of unfulfilled intentions. For those of us who choose other paths, it is perhaps another dream that remains dormant — to teach or make the effort

A Guatemalan family awaits treatment at the Behrhorst Clinic.

to contribute to medical knowledge. Our difficulty lies in being forced to choose, and whatever the path, dreams and aspirations are too frequently put aside. The class project I am proposing would tap some of those dreams and give the members of our class, in some way, for a brief period — or longer if they wish — a chance to put a bit of yearning into action.

What Kind of Medical Center?

What sort of facility do I imagine? Let me say right off, a small one, and from a medical technology perspective, unsophisticated. This clinic could be either in the United States or abroad, my own preference being for the latter. The locale would be carefully selected in an area lacking medical care; the world, unfortunately, offers myriad possibilities. Additional criteria could be a community or patient population that would become involved in making the clinic work, and that would eventually sustain it after the Class of '75 (or '76) had marched its merry way to heaven. Choosing a spot many of us would enjoy visiting and working in would be an equally valid criterion. There are many regions meeting most any criteria we might establish, in the US or elsewhere — finding a site for this center should not be a major stumbling block, but it should be carefully considered.

The economics of such a center also should not be a major obstacle if the commitment is there. As a partial model for this enterprise I envision the clinic and hospital in Guatemala where I worked for several weeks, the Behrhorst Clinic, which in 1972 treated over 21,400 patients. Dr. Behrhorst, who first went to Guatemala as a Christian missionary thirteen years ago, now works as the head of a nonsectarian medical center serving a patient population greater than 200,000. His clinic and hospital treat these people at an average cost per patient of $2.71, including medicines. With a total annual budget less than $82,000 (not including Dr. Behrhorst's salary) this medical center treats people otherwise largely without care, and magnifies its service through training programs for health promoters, nurses, and technicians — mostly for Guatemalan Indians with only elementary school educations.

Each class of HMS is comprised of some 165-170 students. According to Library of Congress figures for 1973, the median income for office-based physicians was $42,700. Medical school affiliated physicians earned fifteen to twenty percent less.[1] Assuming HMS graduates earn no less than $35,000 on the average, if 100 members of the class participate and contribute less than three percent of their income to this project, they could then assume the entire operating budget of a center comparable to the Behrhorst Clinic and Hospital. This calculation does not include construction costs — but neither does it include those fifty other students. Nor is it necessary or perhaps advisable that the entire operating costs of the clinic be assumed by us. Community and government support from the host country could probably be sought, and the US government and some foundations might also be persuaded to contribute resources. My point is that clearly such an undertaking would not represent a great hardship for the members of the class, and that a class like ours could create a health facility independent of other external means of support. I hesitate to offer a detailed account of how the necessary funds might best be raised from the class, only so as to leave the matter open for discussion. If people are committed to this project, then undoubtedly an acceptable way to fund it can be found.

Extravagant sums would not be needed for this center since great sophistication in laboratory procedures or treatment would be neither appropriate nor wise. Most illnesses, and especially those in underdeveloped countries, are readily diagnosed even before the lab is consulted. In Guatemala, for example, over fifty percent of the children born do not live to the age of five. Pneumonia, tuberculosis, diarrhea, parasites, and malnutrition account for the vast majority of deaths. To have the greatest impact on the health of an indigent population, such a center would need few of the facilities of the MGH. It would be actively involved in training medical personnel, in preventive medicine through community education, in family planning, and in providing basic medical care appropriate for the overwhelming number of in and outpatients.

Neither the financing nor the staffing of this clinic need pose a great burden if collectively shared. I anticipate two types of class supporters for this project: a) An inner corps of people (perhaps six to twelve) with a more than average commitment to the scheme, who would serve as a steering committee tackling many of the management problems as well as making a longer time commitment to the project,

perhaps to the extent of one year out of every ten; and b) The outer corps of participating class members — from fifty to one hundred — whose commitment, in addition to the financial pledge, would include a promise to spend six months to a year, at some point in their careers, living and working at the clinic. The goal would be to have at least one person from each group present and working at the clinic at all times (for thirty plus years). This labor force — all from a single medical school class — could be supplemented by utilizing the following resources:

Spouses — Presumably, participating members of the class would wish to spend their time at the center accompanied by their spouses and children. In many areas of the world the basic knowledge of hygiene, nutrition, and infectious disease that most Americans acquire in elementary school or shortly after, is still wanting. Spouses could become the staffers of a school affiliated with the clinic.

Nurses — One way to enlist volunteer nurses would be for the medical class, once committed, to approach a school of nursing and propose a joint commitment to its graduating class. This idea might have much appeal among young nurses-to-be who would then help design the center from its inception.

Alumni — There is no reason to restrict this project to the young. Many HMS alumni might be interested in participating, and their services would be invaluable. Some alumni already have had experiences in offering medical care to the medically impoverished, and almost all have had experience in providing medical care per se. Their advice and expertise could be put to work at the planning stages and beyond. Alumni whose career paths have precluded realizing earlier ambitions and hopes may feel the need for this project even more so than medical students about to commence on theirs.

Students — Although this clinic would be independent of HMS — students, especially those early in their training, could be invited to spend time working there, providing them with a singular experience to see the impact that even a simple clinic can have on people's health. In this way they might receive their first clinical exposure in an environment in which their services truly could be used and would be appreciated by patients. These students might then be stimulated to organize similar centers during their own careers, or to practice a similar kind of medicine.

The center might also serve for some types of research. For example, in the Behrhorst Clinic appendicitis is treated medically because most of the Indians refuse to undergo operations and the hospital lacks the facilities to perform them. Apparently the results are good, but their collation and analysis remains to be undertaken. The Indians of Guatemala have an extremely low incidence of atherosclerosis and cancer, yet like North American Indians, a very high incidence of cholecystitis. Why?

In our attempt to introduce modern medicine to people who otherwise have been suspicious of modern culture and science, our encounter with the values of the community would force us to re-examine our own, a process often yielding great rewards. And finally, operating the hospital on a limited budget might give all associated with it the impetus to think of and practice methods of cutting medical costs; such a perspective is clearly needed in the U.S. as well.

The Moral Obligation

I have argued that the establishment of an HMS class-supported medical center in a medically destitute area of the world would be invaluable to its supporters in satisfying some of their needs, and also of service to Harvard Medical School. By definition, it will also be of great value to the people living within its reach. Moreover, an argument can and should be made that not only is this something we might wish to do for ourselves, Harvard, and the patient population, but also it is something that as American physicians we are morally obligated to do for fellow human beings.

American physicians represent the richest of the rich. We live in a country which consumes ten times its share of the world's natural resources, and we as a group, individually earn over four times what the average American

Dr. Behrhorst with patient, paperwork . . .

and more patients waiting.

does. In medical school we pay from fifteen to thirty-five percent of the calculated real cost of our education.[2] The argument that long hours and training entitle us to such tremendous remuneration is weak. There are many people in the world who work just as hard and as many hours at far less pleasant tasks and who live in poverty. There are many people just as well educated (even as scientists) who are currently unemployed. Physicians are overpaid by almost any standard of comparison. B. F. Skinner, in his utopia *Walden II,* suggests that work which, like that of the physician, offers great amounts of personal satisfaction and pleasant working conditions should receive less remuneration than other decidedly less rewarding work.[3] At any rate, one suspects that, the personal rewards being what they are, even halving doctors' present incomes would not greatly diminish applications to medical school. We should realize our wealth is a gift of a wealthy society that generally puts medicine on a pedestal, and is not an inalienable right. To say we have earned our incomes is not to say that they should not be more extensively shared.

I advocate establishing this clinic abroad especially because as affluent Americans we have an obligation to the rest of the world. It is becoming increasingly clear that were it not for the citizens of other countries, the high standard of living enjoyed by many, if not most, in this country would be impossible. Our breakfast coffee may have passed through the hands of a Guatemalan field worker paid thirty-five cents a day. The cotton in the shirts we wear may have been picked by his brother for the same daily wage. (The one hope of progressive government in Guatemala, urging some type of land reform and redistribution of wealth, was toppled largely through American influence in 1954, with the military in control ever since.) The fact that these men's children are dying of malnutrition and parasites should be on every American's conscience. We of the American rich (which as doctors we almost inevitably will be), accustomed to luxury, are as culpable for these people's misery as the harsh and greedy owners of the estates upon which they work. To commit ourselves to some personal sacrifice on their behalf more closely approximates fairness than charity.

Another issue, which as American physicians we should be attuned to, is the American "medical balance of payments." It is true that the US is the first to rush in with medical aid when catastrophe strikes abroad. It is also true that through US foreign aid much medical help is provided, though usually with political strings attached. The world also is slowly benefitting from the advances made through medical research in this country. When one reads, however, as in a recent article in *Hospital Tribune,*[4] that over 17,000 foreign-trained interns and residents are working in US hospitals, there is cause to re-examine our smugness and self-righteousness. These physicians are rendering tremendous service to the American public rather than to their own medically deprived people. Considering what it costs to train a doctor, this truly represents, as the authors of this article point out, medical aid in reverse. If we are concerned primarily in training foreign medical school graduates, why do we not do it in their own countries? Might not the limited number of physicians available in India or Guatemala receive much more relevant training in a medical center similar to the one I have proposed? Would it not be better, through our own example, to interest them in the health of their country's numerous poor, rather than to encourage the highly sophisticated care that would largely benefit the small ranks of the rich?

The Future Prospect

I am proposing that the students of HMS consider the possibility of committing themselves, class by class, to the construction and operation of medical centers to provide care for people who would otherwise have none. I have argued that the assumption of this lifetime commitment would not cause undue sacrifices of either income or time if each class supported one such center. These medical clinics would be of service to HMS, to American medicine, and especially to the communities in which they would be established. As American physicians, we have a responsibility to show by our example, as a group as well as individuals, that we are sincerely concerned about the world's plight and are prepared to do something constructive.

By means of this project, a new dimension could be added to being part of a Medical School class — a sense of community might arise out of working together on a common endeavor that never comes from suffering through the same lectures. Feelings both towards HMS as an institution and towards one's class could be radically changed with this project. A tradition of such projects at HMS would have a substantial impact upon the school — getting its students and alumni involved with each other, providing a constructive avenue for some of their altruistic aspirations, and exposing them to alternative methods of practice. If begun at Harvard similar projects might start at other medical schools; and soon one is talking not only about a novel class project but about prodigious numbers of health centers.

Is all this youthful dreaming? Perhaps. But if the desire is there, the desire to really do something for the masses of people in the world who never see a doctor and badly need one, then it is no quixotic dream but a concrete plan for action. The time to make this commitment is now; the time to fulfill it is now and in the years ahead.

If interested in working on the project outlined above please contact:

Eugene L. Herzog
147 Kent Street
Brookline, Mass. 02146
731-0627

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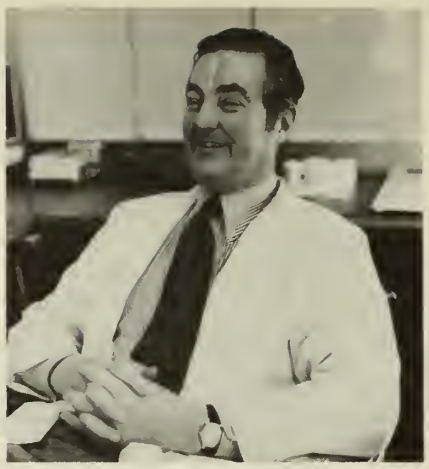
Opposite: Outside the Behrhorst Clinic

"In our attempt to introduce modern medicine to people who otherwise have been suspicious of modern culture and science, our encounter with the values of the community would force us to reexamine our own, a process often yielding great rewards."

Why Not Adopt a Prison?

by Curtis Prout '41



The editors asked Curtis Prout '41, former director of Massachusetts's Prison Health Project, if he would comment on Mr. Herzog's aspirations for a sustained class project to provide medical care for an underdeveloped populace (see preceding article). Following is Dr. Prout's rejoinder:

Eugene L. Herzog '76 made some excellent points in his article, "To Put a Bit of Yearning into Action", however, I would dispute some of them in a friendly way.

The old question, "Why do you want to become a doctor?", asked by every admissions interviewer (and I was one for several years) still needs to be asked, and if possible answered. The motive of service is present to some degree in every entering medical student. During the next four years, however, the idealistic aspects tend to become submerged, as documented many years ago by Daniel Funkenstein and others. It is a rare physician who does not forever retain some of this motivation, though it may not be expressed, at least in an obvious way.

One of the teachers I most admired was the late Samuel A. Levine. Although he was a great cardiologist, the statement of his which I recall most often was one he made in reply to a student in a section at the Brigham. Sam asked the students, "What is the most important attribute of a physician?" None of the several answers suited him. He himself put it in one word: "generosity".

As for Mr. Herzog's figures for physicians' incomes, if we accept them it is clear that his classmates will have to support such a venture on a sliding scale, since a high percentage of HMS graduates go into full-time research or institutional work rather than more remunerative full-time practices.

I like his idea of a commitment made from the start and continued throughout one's professional life, although his figure of fifty active, earning years is more than most of us can hope for. I would like very much, however, to alter the nature of the proposed commitment to a foreign country. The idea of a foreign mission has some of the patronizing aura of the 19th century Christian churches in the U.S. and Britain, when we sent men and money to uplift the heathen while ignoring our festering slums, asylums, and prisons. Of course, Honduras, Haiti, or Malagasy are more attractive than, say, Bridgewater, Massachusetts or Joliet, Illinois and they look better on a curriculum vitae.

For over two years, I have tried without success, by every known sort of persuasion (except money) to interest any medical or dental society, any HMO or medical school department of community medicine, or any teaching hospital to help in the medical staffing of our State's prisons. Here indeed is a cause to fulfill most of Mr. Herzog's criteria:

- A population greatly in need of service;
- A chance to learn diagnosis and treatment without a teaching hospital laboratory and consultant backup;
- An opportunity for a group of physicians to share the burden — to rotate the less rewarding and more arduous medical work;
- A research opportunity to make much needed studies of conditions peculiar to a given defined population in a controlled environment; and
- An opportunity to learn to share with paramedical workers in operating a health system, and to participate in their training.

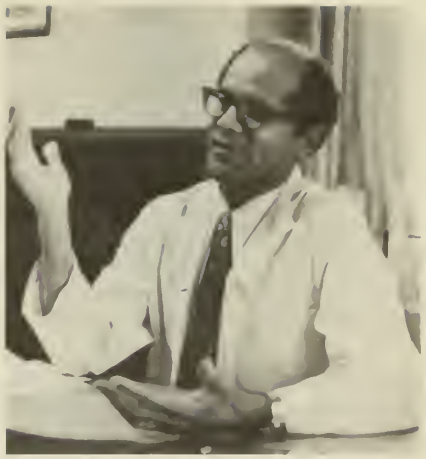
Interestingly enough, the author mentions the 17,000 foreign-trained doctors in the U.S., examples, as he says, of medical aid in reverse. It is some of these physicians who, while doing much of our "dirty work" for us, are now being blamed, and in some cases sued, for the inferior care being delivered in prisons. Why aren't their better-trained critics working there?

Part of the problem is our value system; there is no prestige attached to the job of prison physician. Another part of the problem is ego. It is much more gratifying to work with grateful or subservient patients than with hostile ones who are non-believers in our hierarchy. The most successful physicians in the institutions I have worked in are more often than not women. Nurses and physicians assistants also seem to have more patience and generate less hostility; the proposed HMS cadre could just as well learn from them.

So, hurrah for Mr. Herzog's proposal, but let's first put our own house in order, than perhaps we will have something better to export. Why not adopt a prison?

A Time for Commitment

by Harold L. May '51



The editors also solicited a commentary from Harold L. May '51, director, Division of Community Health and Medical Care at the Peter Bent Brigham Hospital. For thirteen years Dr. May involved himself in trying to ameliorate medical conditions in Haiti at the Albert Schweitzer Hospital in Deschapelles. He was a staff physician there from 1957-58 and chief of surgery from 1960-70.

As Gene Herzog's former tutor, it is a pleasure for me to watch as he puts his yearning into action. But he is doing more than that; he is also throwing down the gauntlet for his classmates and for the rest of the Medical School. The note that he sounds is unmistakable. This is not a time for watching; it is a time for commitment.

Saying that over fifty percent of the children born in one of the developing countries do not live to the age of five leaves unsaid the fact that every day the world population grows by more than 200,000; that food supply is not keeping up with increasing numbers of mouths to feed; that throughout most of the developing world professional people are clustered in the capital and provincial cities while the rural areas seldom have more than one or two physicians per 100,000 population and often only one per 200,000;[1] that often there is not only the problem of recruiting physicians for rural areas but also the problem of paying them; that forty-six percent of all new licentiates in medicine in the United States in 1972 were foreign medical graduates;[2] that solution to health problems in modern societies is nearly always dependent on changes in other areas: agriculture, education, environmental quality. More than 100 years ago William Farr wrote in his annual letter to the Registrar General in London: "The infectious diseases replace each other, and when one is rooted out it is apt to be replaced by others which ravage the human race indifferently *whenever the conditions of healthy life are wanting*."[3]

In the face of massive problems of such complexity what can the class of '75 do? What can Harvard Medical School, its alumni and its affiliating institutions do? They have already been challenged to respond to the American health care crisis, many of whose elements reflect problems seen in the raw in developing countries: inaccessibility of care for many; maldistribution of medical manpower; inadequate resources to meet the demand; rising costs; lack of system. They are confronted with issues that cannot be avoided: in the face of medical manpower shortage resources must be multiplied by training and use of paramedical personnel; more doctors must be trained at the same time that many medical schools are going through a time of deep financial crisis; to the basic responsibility for care of individual patients has been added a new concern: the health of communities; to treatment of the sick has been added a share in a new responsibility: maintaining health in the well; where health care has been characterized by lack of system a system must be created; where care has been inaccessible, provision must be made to increase its availability. Given the immense problems of health care in the communities of the United States, can Gene's challenge be taken seriously?

I say that it must be, although there will surely be disagreement regarding some of the details of his plan. I will be surprised, for example, if two thirds of the class of '75 will be able to respond at this time with a lifetime commitment to support a specific clinic, no matter where it is, whether in this country or in a developing country. Along with the other members of the admissions committee I have been impressed during the past few years with the dedication to service expressed by students accepted into Harvard Medical School. But theirs is a wide diversity of backgrounds, of interests, and of career goals. This is as it should be. Harvard should be preparing physicians to fill a variety of roles, in any one of which the aspiration to service can find fulfillment. My hunch is that there will be some who would enthusiastically support such a health center while others, also highly motivated, will choose another vehicle for service. My hope is that Gene and those who support the idea will not worry about how large a proportion of classmates will have primary interest in other directions. Those who believe in his idea must act regardless of how large or small their number. God is not necessarily always with the strongest battalions.

But facts must be faced. Before world and national problems of such complexity and enormity Harvard Medical School is almost as helpless as is its class of '75 or any one of its members. Gene realizes the obvious fact that the answers will not come from any individual or institution alone. Partnerships must be forged, whether the problems being faced are in Boston, Massachusetts, or in rural Guatemala. As he implies, the massive health care

problems in developing countries, like those in our own society, are so woven into the fabric of the social, economic and political environment that they cannot be separated, and dealt with effectively without confronting at the same time and dealing with some of the accompanying cohort of environmental influences. Malnutrition is a medical problem; but how can it be fought unless there is enough food?

Major disease requires major treatment! It seems to me that successful treatment of the "patient", the people of an entire country, will require commitment not only from members of the class of '75 and Harvard Medical School, but also the deep commitment of the government of the involved country to improving its people's health and to establishing an international partnership to achieve that objective. In order to treat "the whole patient" the partnership should also include the medical school and public health service of the country, its agricultural, educational, and other appropriate services, and the United States government with American agricultural, educational, and other appropriate public and private agencies and institutions.

The above might seem to be another example of the American passion for bigness. On the contrary, it is intended as a recognition of the basic, central fact that achieving maximal impact in improving the health of the people of any country requires careful, often difficult decisions as to the optimal allocation of scarce societal resources, after the roots of the problems have been exposed. The scarce medical manpower in developing countries has to be multiplied (as it does in our own) by training of auxiliary personnel to man the health centers, which should be small, as described in Gene's proposal. Education and community development must play central roles; and in order for all of the people to have increased access to health care, health centers should be part of a system which will allow referral of patients who need complex care — a system for which the medical school of the country will be preparing its future doctors.

It has been extremely helpful that Gene has presented a specific proposal. I am sure that in so doing he is offering the opportunity to his classmates and others to offer suggestions for consideration. My recommendations would be as follows:

1. Harvard Medical School should take Gene's basic idea seriously, whether or not there is agreement concerning its details. It must be understood that the situation does not call for an either/or response, either from the class of '75 or from the Medical School. Neither the class nor the Medical School has to decide between international service or service in this country. Just as some of the class may decide to commit themselves to international service while others decide to serve in this country — the Medical School, with its intellectual and physical resources of such quality and depth, *must* take its place in responding to *both* needs.

2. The Medical School and the School of Public Health should consolidate their international programs in order to avoid duplication and maximize effectiveness. The programs currently being conducted by each school should not be considered as separate fragments, but should be incorporated into an integrated, considerably enlarged and strengthened international program.

3. HMS - HSPH should choose one or more countries, as suggested by Gene (possibly by extending one of the programs already existing). However, instead of limiting attention to one rural health clinic, HMS - HSPH should develop a special relationship to the medical school (s) of the selected country (or countries), assisting — with the other participating institutions and agencies — in defining the health problems of the country, selecting goals for the program, articulating the possible methods for achieving the goals, and developing and implementing the program.

4. This concept should be presented through the American Association of Medical Colleges to other medical schools and to the United States government with the proposal that similar programs be established in other countries by other medical schools which desire to participate. It should represent a major foreign policy decision of the United States with implications for such programs as agricultural assistance to developing countries, and for such intergovernmental policy decisions as those regarding foreign medical graduates practicing in this country. It would be a way of implementing the Carnegie Commission recommendation that "the United States should become a net exporter of medical manpower, as part of the effort to raise the quality of medical education and medical care in underdeveloped countries."[4] It should be noted that assisting in raising the quality of medical education and health care in developing countries will, at the same time, teach many lessons that will form the cornerstone in improving the quality of health care in this country. Each side in such a partnership has much to teach and learn from the other.

5. A program of such scope requires financing. As Gene proposed, some of the support should come from the affected country but much should come from the United States government. Additional help could and should be solicited from private and, whenever possible, international sources.

Space does not permit further elaboration of detail. A word of caution is in order, however. Translating a simple, straightforward call for commitment of individuals into a massive bureaucracy would be a sure way to snuff out an idea that pulses with life. Commitment comes from individuals; and it will take committed individuals, working within strong partnerships, to face the needs squarely and to meet them effectively.

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Five Years After Woodstock

by W. Brewster Wolfe '49

It all began with Joan Baez. One of my numerous teenagers had heard about the "Happening" to occur August 15-17, 1969 at the late Max Jasper's farm in Bethel, New York. Lured by the promise of Janis Joplin, Jimi Hendrix, et al, she wondered if somehow I could arrange our attendance there. Since Bethel is only forty-five minutes (under usual conditions) from our home in Newburgh, since our hospital had been requested to be a back-up for medical care at the Festival, and since I was a Joan Baez fan from way back, I said I'd see what could be arranged. Contacting the medical director of the festival as chief of staff, I confirmed that St. Luke's would be glad to be a back-up hospital and asked him whether he could use any medical help at the scene. He said he would be delighted to use me as a physician and my daughter, Andrea, as a secretary, since they were expecting one to two hundred thousand people and had only three doctors. Little did we know that the crowd would eventually swell to over five hundred thousand and that our "helping out" would consist of twenty-four hours of straight work with little chance to hear the entertainers.

Having been given the proper identification cards, we left Newburgh at about 5:00 p.m. on the fifteenth, planning to return early in the morning on the sixteenth. As things turned out, we weren't back home until the seventeenth, having had but little to eat and no sleep in the interval. On our way there, the car radio began giving warnings about the increasing throng and the enormous traffic jam. The jam turned out so immense that it made the Long Island Expressway seem like a speedway. The first thirty miles were traversed in about an hour; the last five in *five* hours. Traffic was bumper to bumper two cars abreast, no traffic able to come in the opposite direction. The closer to the farm, the more cars littered the side of the road, having either broken down or run out of gas. Their occupants cheerfully abandoned them — everything from old jalopies to brand new Cadillacs — and joined the walking mob, clogging the roads, hopping in and on the fortunate surviving cars. This was our first experience with what turned out to be the most remarkable thing about the huge Woodstock Music and Art Fair — the mood and behavior of the crowd that was somehow sustained for the four days: a mood that was light-hearted, irresponsible, nonviolent, and determinedly gay despite many obstacles — not the least of which was the rain that began to fall slowly early Friday evening and became a deluge Saturday morning turning the meadow into a steaming quagmire.

We finally limped into the jam-packed campsite at about 11:00 p.m., almost out of gas, and scarcely had time to evalute our surroundings before being put to work. The "theatre" was a huge half of an amphitheatre made out of an immense half-bowl of a meadow, encircling a great stage with scaffolding at the bottom and elevators to bring the performers up to the stage. The scaffolding held large loudspeakers that magnified the musicians' already considerable din. On the periphery of the meadow was the service area, containing completely inadequate toilet and eating facilities, and two trailers which served as medical dispensaries. There were also small aid tents run by a group called the "hog farmers" for cases of severe drug reaction. Later a larger dispensary tent for the non-ambulatory

"The most remarkable thing about Woodstock was the mood of the crowd: light-hearted, irresponsible, nonviolent, and determinedly gay despite many obstacles."

ill was activated. Andrea and I were welcomed and immediately put to work in one of the trailers, she tagging and keeping records of all the sick who visited our trailer, and I treating them as effectively as possible under the circumstances. We worked for about twenty hours straight without let-up, she occasionally answering nature's call in somewhat prolonged fashion to hear some of the performers; myself doing so once to hear the relatively quiet, and thus rather incongruous melodies of Joan Baez — who added, for me, the only touch of sweetness to the night. Late the next evening we returned to Newburgh in about an hour, on roads that were now dry and relatively unclogged except for the abandoned cars on the wayside.

After a little food, sleep and checking the hospital to see that we were ready for any emergencies that might arise, I drove back to Monticello where they flew me into the campsite via helicopter. Another full day's work — this time in the tent — before a rescue crew of about eight or ten MD's arrived from the surrounding area, enabling me to leave assured that adequate medical help was on hand. Then a semi-collapse into a long sleep at the nearby Concord Hotel and return home the following day. Parenthetically, the contrast of the life-style and behavior of the clientele at the festival and at the hotel was startling to say the least, giving me some insight into the (in part) legitimate rebellion of the younger generation.

Medical Aspects of Woodstock

My main medical remembrance of Woodstock was feet: big feet, ugly feet, sexy feet, fat feet, thin feet, all with varying degrees of blisters, abrasions and contusions, and all remarkably filthy. I asked some how the heck they could have gotten their feet into such horrible condition. The answers were much the same — they had ended up walking miles and miles, further than they had planned, and most had poorly made walking equipment. In fact, the only cases of robbery (and they were numerous) in the immense throng involved shoes! Many the pilgrim awoke "sans shoes," and while the thief slept, again the shoes were stolen. The quagmire coated all feet with deep crusts of mud and before any treatment was possible the mud had to be removed. We finally hit upon the efficient method of making two lines of several buckets and towels, one for left feet and one for right feet. For some reason people seemed to have blisters or cuts on one foot rather than both feet. A somewhat hirsute, friendly and obliging young man introduced himself to me as a surgical resident at the Peter Bent Brigham Hospital and asked if he could be of any aid. He was promptly put to work in the right foot line. I've often wondered if he will tell his children of his important medical duties at the legendary Woodstock.

Initially, the equipment was adequate — somewhat similar to that of my Battalion Medical Aid Station in the Army. As time wore on (we treated over a thousand patients in my trailer alone), our supplies began to dwindle and extra supplies had to be flown in: antiseptics and bandages for the feet, antibiotics for various infections, antacids for gastritis, and so on. It was somewhat reminiscent of sick call in the Army, involving not a few instances of gonorrhea. What was totally new, however, were the drug reactions. At that time and place LSD was in particular vogue and there were literally hundreds of "bad trips." Fairly near the outset we began to transfer these patients to the "hog farm," a fascinating and useful outfit that apparently had been flown in from the West Coast in anticipation of numerous drug reactions. They really knew their business, having once been deep in the drug scene themselves. They received their name, I was told, from the "hog farm" to which they had gone from Haight-Ashbury for recuperation. The men wore dungarees, the girls long dresses, and they were marvelously adept at handling the patients. As a general rule they treated only their own sex and with infinite patience would spend hours with a single patient, talking quietly and soothingly and commiserating with him or her, saying that they had been there in the past themselves. Without the hog farmers Woodstock would have had many more tragedies. I also wished after this experience that all young people could see for themselves the agony and horror of the bad trips and the immense suffering that resulted from these kids' all too successful attempts at escaping reality. The small number that were unable to be calmed by the hog farmers were treated fairly successfully by high dosages of 1m valium (thorazine had been reported as having caused hypotensive crises in some of the drug reactors). A few had minor eye and stomach disorders from pot, but I saw few severe heroin reactions, since this was more a marijuana and LSD crowd. Good old-fashioned drunkenness was present but not common.

Remarkably only about four deaths were reported — far fewer than the violent deaths any city that size would have had over a similar period of time. The most tragic and senseless one was a handsome and husky young man brought in by ambulance moribund and, fortunately, unconscious several minutes after reportedly having been run over by a huge disposal truck as he was sleeping in the field. A quick examination revealed that about all his ribs had been broken and his sternum crushed. Subcutaneous emphysema from ruptured lungs was felt from the top of his scalp to the tips of his fingers, a finding I hope never to see again. Despite oxygen and cardiac resuscitation he died within five minutes. A distraught young medical student kept imploring me to "do something" and (apparently having just finished anatomy) gave me a lecture — something to the effect that it was possible to have a pneumothorax on only one side, since the subcutaneous emphysema could travel across the

chest because of the absence of a significant "median raphe" there. He told me to tap the chest, but when gently asked which side, he lapsed into silence.

A minor tragedy was a hemophiliac from a nearby town who had wanted to get into the swing of things for once in his life, and merely from excess walking suffered from severe traumatic hemoarthrorisis in both knees and had to be sent to the nearby Monticello Hospital via helicopter for treatment — along with a young woman tearfully denying labor despite two-minute contractions. Remembered also was a somewhat self-confident, almost raunchy young lady in dungarees, with very long hair and a half-opened, well-filled blouse who suddenly burst into tears and revealed she was only twelve years old and had become separated from some so-called friends who had driven her up from Long Island unbeknownst to her parents.

The following day at the tent we saw mainly severe drug reactions, a few fractures (sent to the nearby hospital) and many cuts, abrasions, and sore throats — all in all amazingly few injuries and illnesses considering the immense throng and the poor weather.

The Happening

In reflecting upon Woodstock one is immediately impressed by the number of people — five hundred thousand — reported present. One first wonders about its accuracy, knowing that the mass media are not loathe to exaggerate such things. But if one compares a picture of the filled meadow to, say, Boston's Fenway Park, one can envisualize fifteen stadiums full which would be about one-half million people. The other fascinating feature is how these people came to know of it and actually attended without the persuasion of the usual publicity mechanisms. What Woodstock did do was to impress upon many previously unsuspecting minds the presence of a large subculture in our society with communication lines of its own — namely a few radio stations, a few underground press papers and a formidable word-of-mouth trunk line carrying information throughout the eastern part of the country, particularly to the fifteen to thirty age group. One thing surprising to me was the presence of not a few under fifteens and over thirties. A pleasant feature of the huge mob was the complete acceptance of everybody by everybody, whether a young pre-teener, a married couple with a baby, an old couple with children or just plain older people. The author could not have been confused for under forty, and was wearing a somewhat odd hat, but no one paid him a second glance.

"The majority of those attending were white, middle class America who seemed papa would clean up after them or pay

The mass media, again blowing things out of proportion, emphasized nudity, drugs and lovemaking. Nudity was present but the vast majority wore clothes of some description except when swimming; bathing and washing in the buff were related more to exigencies of the mud bowl rather than to any sensationalism. Lovemaking there was, but with a few drug or alcohol exceptions it was far from enough to make me change my opinion that the human species prefers to make love in private rather than with an audience. Drugs were available (in greater quantity and cheaper than water) but again many people used little or none. Bad drug reactions there were, but out of the huge crowd, relatively rare.

Why they all came is another legitimate question to which there seems to be several answers. The big bait for many was the presence of a number of popular big-name rock performers such as the late Janis Joplin, Jimi Hendrix, Richie Havens, and Joan Baez. Others

"obviously sons and daughters of affluent, to presume that as usual mama and somebody else to do it."

were lured by the idyllic sounding promise of music in a beautiful rural area within traveling distance of many of the large eastern cities. It was also vacation time, primarily for school and college students, but also for some others. For many it was a chance to get together with their peers at an exciting happening. The Woodstock Music and Art Festival was obviously a right idea at the right time, but even the two young New York promoters themselves were somewhat surprised by the overwhelming response.

Most impressive at first glance was the attitude and behavior of the crowd. Peaceful and good-natured were all, and this was somehow sustained for the four days despite the harrowing conditions of extreme crowding; lack of privacy; horrible weather making everyone cold and wet, and mud the all pervasive element; completely inadequate toilet facilities undoubtedly turning Max Jasper's farm into the best fertilized field for miles around; and lack of drinking water facilities giving rise to severe and near catastrophic human draught circumstances (eventually water was flown in and then trucked in). On reflection the exemplary deportment and mood of the crowd may have arisen *because of* rather than despite these discomforts, since the human animal is such that on occasion, in the absence of real life-threatening occurrences, people will respond magnificently with concern for one another and thrive on temporary hardships.

Conditioned by bad experiences with the occasional violence from drunks and rowdies at sports contests and other events drawing huge crowds together, many older people, and law enforcement agents in particular, were prepared for at least some violence. One of many surprises at Woodstock, however, was the utter absence of any violence whatsoever, from major outbursts down to petty fist fights. This was due in part to the discretion of the officers, but much more basically to the mood and philosophy of the crowd, which were truly nonviolent. One cynic commented that the huge crowd was peaceful and complacent, but so is a herd of cows!

Which brings me to my final impression of the crowd, namely its basic irresponsible, "free-loader" attitude. Cows at least give milk and eventually their bodies for their free ride. The crowd's legacy was an immense mountain of papers, bottles, cans, clothing, excretia, and every conceivable type of refuse. A handful of volunteers stayed afterwards to help clean up the mess, but it took weeks and weeks to remove the tons of debris left by the "now" generation. The majority of those attending were obviously sons and daughters of affluent, white, middle class America who seemed to presume — if they thought about it at all — that as usual mama and papa would clean up after them or pay somebody else to do it. Very early in the festival security measures allowing people into the meadow collapsed and probably over half present received not only the entertainment but the use of other facilities (meager as they were) without paying a penny or doing a lick of work. Likewise with the medical facilities — I presume that the promoters furnished and paid for some of the mountains of medical supplies used, but also suspect that a substantial amount was given gratis by some of the drug companies unpublicized. With this background, then, I was somewhat nonplussed that not many of the thousand people seen in our trailer thanked the purveyors of medical care and not a single one offered to pay for it. Initially this angered me, but my final impression was one of puzzlement — who in the world did they figure kept filling the golden mug from which their succor came?

A Five Years' Perspective

One impressive thing about our media is their uncanny ability to take any unusual occurrence and puff it (and themselves) up to tremendous proportions; endow it (and themselves) with remarkable importance, and sustain throughout their coverage a high, almost allergenic, refusal or inability to place things in their proper historical perspective. Two weeks after Woodstock *Time* magazine stated: "It may well rank as one of the significant political and sociological events of the age. The real significance of Woodstock can hardly be overestimated." Maybe so — but what of the changes the past five years have seen? In these five years American forces have finally been withdrawn from the unpopular Vietnam War, and the most unpopular draft in our history has been ended. The hysteria over drugs is subsiding, and the pendulum of sexual exploitation and permissiveness is beginning to seek the middle ground. Newer phenomena have now come to the fore: Women's Liberation, the redefining and clarifying of relationships between the branches of government, brought about by Watergate; the awareness that our affluence is not a perpetual phenomenon, brought home by inflation and the oil shortage; and finally, the birthpangs of an ecological responsibility, stimulated by environmental pollution problems and alarming shortages of our resources, animal, vegetable, and mineral.

A more likely interpretation of the huge Woodstock Music and Art Festival, as seen from only five years afterwards, is that it will be an historical footnote showing the culture of our times — specifically a type of cop-out; a rather irresponsible, peaceful subculture only able to flourish temporarily in a culture with confused (but fortunately still extant) ideals; a subculture stimulated by and mirroring art typified by an evanescent music wallowing in undisciplined emotion, made possible by technologically sophisticated transportation and communication channels, and above all, occurring in a culture saturated with affluence. All in all, despite our mass media to the contrary, it was a huge pleasant nothing. As one bearded, unwashed, amiable young male participant said to me when I asked what Woodstock was all about: "Probably nothing, man, but I'm sure glad I'm here!"

"It Takes All the
To Keep in
If You Want to
Else, You Must Run

Hindsight

by Stefan Kruszewski '77

Harvard Medical School is many things — not, however, in Cambridge. I had been to Harvard and Boston (in that order) one time previously (interview) and vaguely remembered being told that the Medical School was not in Cambridge. After my dad and I had vainly driven in and around Harvard Square we discovered that it was Back Bay for HMS.

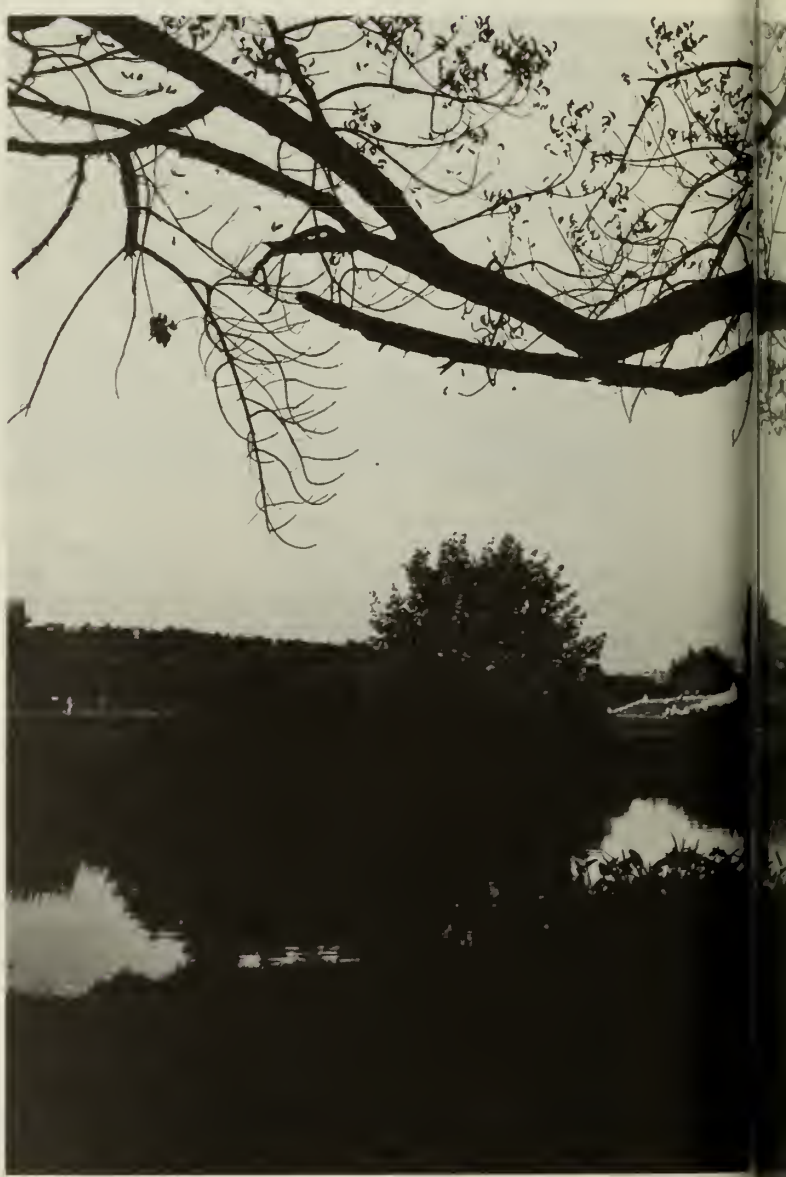
A wise man, cognizant of the fact that I planned to attend Harvard, once told me that Harvard students have a reputation for being among the most outspoken and critical (he would not go so far as to say revolutionary) of students. Student dissension was manifest in the autumn of '73, precipitating student forums, committees and letters over an issue of paramount significance: grades, or as some at HMS might have said, 'histology's guffaw.' Some time after the first quiz of the season, the histology department posted the following on the bulletin board leading into amphitheatre C (where the class of '77 was more than likely to be found each working day): 19% excellent, 62% pass, 15% marginal, 4% fail. Those numbers were not well taken, particularly by the majority of students who either did not know what being 'marginal' meant, felt that a reward system of excellents should be abolished (since we were post-premeds, at last!) or disliked any sort of grade-posting. And then there were those who really did not seem to care.

Much talk followed. Many petitions were circulated. Eighty-five percent of the class apparently agreed that something had to be done. Why were not we, as incoming students, consulted further about the grade change from P-F (that had been in use for more than a couple of years) to E-P-M-F? Were we not entitled to voice our dismay over the faculty's decision to return to G-R-A-D-E-S? Were we going to let this decision, made for us, stand unopposed?

Talk continued. A numbering system was proposed as a counterattack to the decision. I became number 74 and used this alias to sign my examination papers until Christmas, thereby insuring my privacy in the world of grades while having a voice among the disenchanted. Only a certain Carmen, HMS I, had access to my identity. The information was not to be disclosed except upon special request from Dean Ebert if a certain person-number failed to inform the proper authorities of a poor exam score.

Where did all the talk end? In a student-faculty committee, headed by Dr. E. Blout from the biochemistry pre-clinical faculty, which gave rise to a proposal effectively eliminating 'marginal' and keeping 'excellent' virtually intact (though the use of this was, as we found, very limited) and number 74, among others, saw a swift demise.

(continued on p. 44)



Running You Can Do, the Same Place. Get Somewhere Twice as Fast as That!"

— Through the Looking Glass

from HMS II

by Laurie Watson Raymond '77

Last winter I would have told anyone who asked about HMS I that its curriculum was extremely frustrating and its social environment possibly the most unsatisfying and destructive I had ever experienced. I still maintain that Harvard has made mistakes in our education and orientation to the medical community; among these is its apparent insensitivity to our need for personal adjustment during the first year. Perhaps this negligence stems from the faulty assumption that students entering graduate school are mature enough to withstand adjustment without having it interfere with their ability to work. Ideally this is so, but it underestimates how strong the elements of fear, frustration, and self-doubt may be in a new testing ground. While achievement is admirable, it may retard one's personal growth if it constantly necessitates denying one's legitimate emotions and reactions.

At Harvard, academic achievement is well recognized as a top priority, and as such is largely responsible for the successes of its students and professors. But it leaves much unsaid about the emotional and spiritual qualities to which a "whole" doctor might aspire. This failure to encourage personal growth was clearly reflected during orientation when a speaker told HMS I that our personality development was already at its highest point and we could only expect it to erode under the pressures of the next four years. By trying to explain the emotional elements with which I found myself dealing last year, I can hopefully open up the channels of communication a bit more and point out how negligence affected our class and how it might better be avoided in the future.

There are three main issues with which I tried to contend during those first months. The first was a fear of failure — not only my own but that of my classmates; the second was the intellectual frustration of being rushed through block courses without any time to re-examine or absorb the essentials of the different disciplines; and the third was an increasing doubt as to whether medicine was the right profession for me.

A fear of failure is natural in any new testing ground, but there are certain features peculiar to Harvard that tend to accentuate it. The first is Harvard's reputation as one of the most high-powered and academically oriented medical schools in this country; the second is its well-known reputation for selecting unusually qualified people; and the third is its lack of sufficient communication with students between acceptance in the spring and entrance in September. Completely unprepared, one enters the situation with a certain amount of awe and speculation as to what it was that secured one's acceptance — a feeling that was heightened for me, a non-

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By the time the decision to rescind marginal had been approved, HMS I was more deeply involved in other important issues, such as learning some medicine. Biochemistry, physiology, genetics, microbiology, social and preventive medicine, pharmacology, histology, and behavioral science (where we sat for a final without ever having had a course) soon culminated in the January specials: immunology, pathology, and radiobiology. These all-too-brief courses yielded to Dr. E. Raviola's Spectacular Anatomy, which received a final standing ovation. This was a welcome mini-introduction to Human Biology I and the second semester.

In sequence, cardiovascular followed, with Dr. A. C. Barger and his eminent staff. There was a certain thrill in having established that PAT meant paroxysmal atrial tachycardia.

After a short respiratory break, we found ourselves in the renal section, and I found myself keeping up with the tradition of the medical student. In cardiovascular, my pulse raced when tachycardia was mentioned. In respiratory, I was sure my lungs were being stifled by Boston's atmosphere. And in renal, it was a quick trip to the men's room when diuresis was discussed. Just think what I had to look forward to in gastroenterology.

Skin and Bones was a bothersome block, particularly because it did not seem to fit into the previously established pattern of Human Biology I. Aside from Dr. Pott's warm smile and fascinating work on parathormone, the block did provide one other function — it concluded Human Biology I.

Sidman and Sidman set the stage for June-July. For me, neurology was the epitome of an excellent combination of teaching, correlations, and independent work.

As you might expect by now, student disagreement exists on the degree to which HMS students work. How much time does a Year I student average per night on medical affairs? Whatever the answer, the number might not be intrinsically useful. Just reading the 'camel' (which is the HMS extended, often disorganized, syllabus for each course or 'block'), would not take all of one's time. Instead, first year students delve into advanced sources, often found in Harvard's well-stocked Countway Library or retreat to more basic texts irregularly found at the local Coop.

HMS I is not, however, exclusively textbook work. The tutorial system, when fully operative, gives the novice a chance to discover the mechanics of medicine, and in a few cases, to apply newly learned information to hospital patients. Under the guidance of residents at the MGH or Boston Lying-In, students worked after hours in the emergency rooms and/or delivery rooms. I was fortunate in having an energetic urologist and learned of IVP's and phleboliths well before the renal block. Were it not for the availability of tutors and willing residents, new HMSers would be limited in their clinical practices to the use of aneuroid sphygmomanometers on each other or putting canines into atrial fibrillation.

The curriculum, however, was only part of the HMS I experience. What sort of people comprise the class of '77? Here everyone will give you a different answer. Fortunately, this disagreement reflects the foundation of Harvard's strength — variety. Before the start of classes I remember reading in the *New York Times* that the class would be one-third female and approximately one-sixth minority. It was rumored, as well, that much of the class would hail from exclusive undergraduate schools, with Harvard, MIT, Princeton, Yale, and Stanford donating sizeable fractions.

There were indeed differences that provided a panacea for many initial fears. No, the class was not going to be made up of 150 obsessed premeds who could do little more than memorize biosynthetic pathways. Instead, there had been admitted exceptional musical talents, dancers, photographers, mountain climbers, white-water canoeists, cyclists, chemists, paleontologists, etc. And, of course, there were individuals who had had extensive basic science training — much more than the required courses for admission — and were willing to share its benefits and knowledge.

Once at HMS, however, these many individuals are all subjected to common pressures for academic achievement. One Princeton alumnus suspects that many in HMS I will be climbing ladders and jumping through hoops for the rest of their lives. That easily summarizes what others have feared and/or believed. Although his thoughts of Harvard are essentially good, he adds that there appears to be a large contingent of students who are bent on gaining access to the medical hierarchy and who will do so at a high cost to themselves and the class. Richard Wright '77 also senses the strong, oftentimes excessive drive manifest in many of the students, and adds that, due primarily to work and time demands, there is insufficient time to develop full relationships at HMS.

A welcome perspective on HMS and Year I was suggested by Mary Averill '77. She felt that the academic pressure was not nearly so intense as internally generated pressures prompted by one's own motivations. Her overall impression of HMS was decidedly positive. She found Vanderbilt Hall to be a source of particular pleasure, satisfactory not only as a social institution, but equally as a learning hall where she could benefit from the advice of others.

Vanderbilt has always offered a broad base of appeal and is a good focal point to witness the diversity among students. On most any sunny afternoon, tennis pros and amateurs play in Vanderbilt's courtyard. Reverberations of a basketball are often heard from the gym as well as noise from ten-on-a-side volley ball games. Sunday night is jazz night in the lounge and any night is a good one for company.

Saturdays, we were not likely to be found buried under books in the library. Rather, first year HMSers chose from among a multitude of diversions in the Boston metropolis. And for some who did not leave the dorm, the television in the Deanery was recreation — Saturday afternoon meant NCAA football: number one Notre Dame, USC, Alabama, Oklahoma, Michigan, and Penn State. If, on the other hand, the Harvard game was at home, well . . .

My own impressions from Year I are generally positive but with some misgivings. Disorganized 'camels' and fear of failure are problems that should and could be ameliorated. But, as one peer told me, Harvard does have potential.

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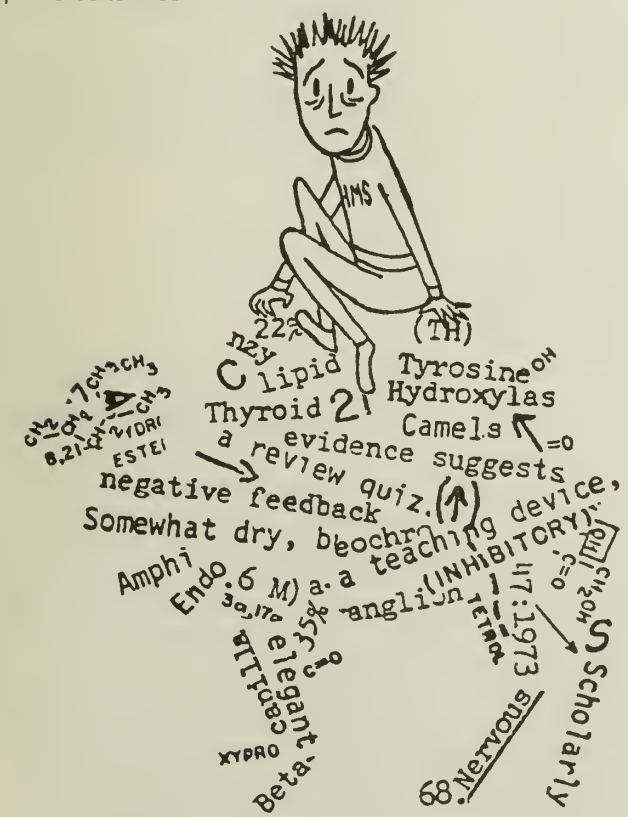
science major in college. It is therefore easy to be threatened by students who ask intelligent questions in the first few classes when one is still trying to figure out the room numbers. Moreover, one tends defensively to categorize classmates — arriving at conclusions, for instance, that IQ is directly correlated to the thickness of a student's glasses, or that because one is the only questionning voice, all the rest understand what is going on or are too clever to prove otherwise. While these fears are cured with time, there still remains a significant amount of distrust within the class. Each one expects the other to have been a more competitive pre-med (and most pre-meds don't trust each other to begin with). Only when academic survival no longer was an issue and we all began to realize that we were going to stay, did friendships begin to develop and a better social atmosphere evolve. What still lingers, however, is a definite prejudice against those students who work particularly hard or seem more achievement-oriented than others. It stems largely from that competitive segment of the class that busies itself with planning to climb the new ladder that replaces the pre-med scramble for entrance. I am sure this will also fade as each of us becomes familiar enough with medicine to pursue his or her own interests regardless of the success or failure of others.

Whether Harvard could contribute to the speeding up of this natural social process is doubtful, but more information could be given to those accepted before entering in the fall to better prepare them for the educational demands ahead. In addition, Harvard could help allay initial worry about failure, as this often drains a significant amount of energy that could be put to better use.



"Disorganized camels and fear of failure"

"Only when academic survival no longer was an issue and we all began to realize that we were going to stay, did friendships begin to develop and a better social atmosphere evolve."

My reaction to the curriculum was one of continued anger and frustration with each new "discipline of the month." There was too little time to get a feeling for a subject. No sooner did one become interested and want to read outside material than one discovered that there was only time to study for the test. Furthermore, there wasn't time to study thoroughly; one hoped to hear what previous tests had stressed and to use them as study guidelines. What a way to develop curiosity and a spirit of inquiry! The pursuit of individual interests was continually discouraged because there was rarely time for that and for memorizing the camel as well. Worst of all was having to depend on a camel which was often too simplistic — or failed to explain concepts clearly enough for novices to the field. Precious hours were lost stumbling through its scattered organization, memorizing a lot of detail when it would have been better to read two or three basic sourcebooks with a much more thorough and integrated presentation.

While I am happy to see that the curriculum has changed, I am surprised that so little student opinion about last year's curriculum was solicited. Not once did anyone inform the class that a curriculum change was being considered. Instead, HMS I simply heard that the decision had already been made.

Concerning my doubts about having chosen medicine as a profession, I feel I have a distinct advantage over my male counterparts. I can consider the question with less fear of social disapproval, and therefore, perhaps, can deal with it more honestly. I think most of my disenchantment with medicine stemmed from the intellectual frustration caused by having to memorize concepts and principles without giving them sufficient thought. The second source of my doubt was the lack of role models with whom I could identify. This is due not only to an almost complete absence of women instructors and lecturers at the "block" level, but also to the remarkable concentration of highly specialized physicians as lecturers. Not only did more generalized medical practice and primary care seem remote, but so did the possibility of having a family and pursuing personal interests outside medicine.

I can see now that my doubts about myself as a doctor stemmed mostly from the fact that I did not see myself fitting in anywhere at Harvard. With my increasing knowledge that Harvard does not represent all of medicine, this no longer bothers me. I have renewed my certainty that this field is still compatible with the qualities I am seeking in my future life, although it may take some stretching — so much more the challenge.

Letters

Bitter Memories, Too

As an inveterate reader and sometime contributor to the *Bulletin* I found much to think about in the last issue (Class Day). What left the most profound impression was not content but tone; so many of the class day speeches by the graduating students had that note of frustrated regret, of bitterness, that I recalled so vividly from my own graduating year from myself and my classmates. When it was my task, five years after graduating, to distill alumni questionnaires from my classmates for a reunion book, that same note of bitterness was there. Later in the same issue of the *Bulletin* is a list of "lost alumni"; there seem a lot of them. Appallingly, one lost alumnus is from last year's class! Cutting loose completely seems to take little time.

These observations led to two trains of thought, one pessimistic, one optimistic. One might conclude pessimistically that despite unceasing fiddling with the curriculum the teaching continues to be, for the most part of the undergrad years, bungled and badly done by teachers with no wish or gift to teach; and that dehumanization, inevitable as time itself, continues to grind down the students despite their best intentions. Oddly enough, there is optimism latent even in this picture, for the simple reason that students who feel their humanity at risk are that much armored against its loss. In other words, if the same issues *continue,* with the same energy and concern, to trouble the students, then they are safe from the most terrifying danger of all: that their humanity should be lost and that they should not miss it.

Thomas G. Gutheil '67

And Then Came Eve

The article on women at HMS in the Sept./Oct. *Bulletin* was of particular interest to me, and prompts me to offer you a bit of the history that is perhaps not yet recorded, and should be.

This story was told to me in the late 1940s by Dr. S. Burt Wolbach. I am reaching a stage where remote memory is sometimes more correct than recent memory, but the facts should be verifiable. Dr. Wolbach was then professor of pathology, a friend, neighbor, and keen horseman, and in anticipation of retirement had acquired in the summer of '48 or '49 a very large, fast, big-jumping young horse, which he was schooling himself. Everyone at the Millwood Hunt agreed that he shouldn't go galloping around the countryside alone, but most of them weren't able to go with him. I was appointed, and thus became the recipient of many wonderful stories while we walked home, "blowing them out." His tale of how women came to be admitted to HMS goes something like this:

The question came up periodically, of course. He thought it came up after wars. At any rate, there was enough clamor about 1945 or '46 to require the subject to be reopened officially. Whatever person or group had to settle it that time hit upon a very Harvard-sort of solution; the previous study, soon after World War I, had recommended adversely, and the only member of that committee still at HMS was Dr. Wolbach, who was promptly appointed and asked to form (i.e. pack?) his own committee. He chuckled with sly delight as he told me that the earlier conclusion was that women had indeed demonstrated that they could study medicine and become competent physicians, that many schools were admitting them, but that there should be a place where men could study without the distraction and embarrassment that women would cause. The administration didn't delve far enough into the old report to find Dr. Wolbach's minority, dissenting opinion, so he only had to update his documentation of many women who had studied medicine and were all active, contributing members of their communities, even when not in full-time practice. It was recommended that women be accepted.

The Board of Overseers still wasn't sure, and while we were students, we were slightly subdued by the knowledge of a ten-year trial period. In the fall of 1953, my senior year, ten classes of women had been admitted and the Overseers met in Building A one bleak afternoon to decide on permanent policy. We have stayed. And there is a whimsical footnote: not long afterwards, the first ladies room was available to us in Building A (where the library was then located). It was attractively decorated and furnished by some thoughtful faculty wives, and was inaugurated with one of the stranger tea parties I've attended.

June Murray '54
(Mrs. Richard E. Senghas)

One Man's Opinion...

In her article on "Women," Miss Savoia refers expansively to "demeaning sexual stereotypes." I can only identify one in existence today, the female liberationist.

Kenneth S. Danielson '65

Primary Care in Cambridge

Dr. Burwell's article on HMS teaching primary care physicians has several interesting suggestions. However, there seems to be no necessity for waiting for the new PBBH complex to build a 100 bed community hospital as he suggests. HMS already has an affiliated community hospital with neighborhood satellite clinics in the Cambridge Hospital. It refers more complicated cases to other teaching hospitals. This is not an ideal setup but goes a long way in the direction Dr. Burwell has indicated, as indeed his own hospital on the Cape

does. Another affiliated hospital, the Mt. Auburn, serving a different type of patient, is also a possibility. The problem is to see that these hospitals remain as community hospitals, actively using MGH, PBBH, Beth Israel et cetera as referral hospitals. The staff in these community hospitals should be more oriented to primary care and less to highly specialized services. In addition to these two centers in Cambridge there are the Harvard Infirmary, the M.I.T. Health Service and the ambulatory branch of the Harvard Community Health Plan. Thus the Cambridge side of the river offers a good many opportunities for teaching primary care and also a simple, successful, communitywide mental health scheme.

The entire community health plan should be examined more carefully to see how it can be more effectively used than it now is.

The years it has taken and still will take to get the Associated Hospital complex moving and oriented to serving its neighborhood should be considered carefully. The HMS needs to have viable action centers of various kinds functioning as units if its students are to learn primary as well as comprehensive care.

Leona Baumgartner, M.D.
Visiting Professor of Social Medicine

A Physician of the Body Politic

As great an admirer of your generally good and thought provoking publication as I am, I cannot refrain from expressing my surprise and disappointment at the brevity of the death notice for Dr. Ernest Gruening.

If Harvard Medical School is justly proud of its great practitioners, its clinical teachers and its great researchers in medicine and physiology so ought it honor also its great contributors to other fields of human value. Medicine in general and Harvard medicine in particular, have produced great scientists in non-medical spheres, writers and men of principle and foresight in social, political and human affairs. I cannot think of any man or woman in the last category who could be more easily and properly honored than Dr. Gruening. If he was premature in his views, if he once could have been called controversial or polarized by those who lacked foresight and principle, he could not any longer be called that. To the contrary he, with, and actually more than, Senator Morse, told this nation what was happening and what was going to happen in consequence of our venture in Southeast Asia. He said it with great vigor when he was already an old man, and he said it sooner and thus with greater clarity than any of those, including Senator Fulbright, who subsequently saw the truth. I do not propose that Senator Gruening be honored because he was successful as a politician who managed to win elections and was thus mildly famous. I think he should be honored because, hardest of all things, he saw the truth early, he saw it when it was unpopular and he spoke out with courage without regard to personal unpopularity. Perhaps that is even more remarkable because this country often fails to honor its political prophets in their time. And also because we live in an age of pragmatism and not principle. Among political figures of the dominant parties who else saw and honored both truth and principle in the matter of the Vietnam War? Is there a rarer combination than the acuity to see truth and history properly and the personal strength to adhere to moral principle? Especially, learning what we have learned in the last year, in a politician?

I saw Dr. Gruening only once. It was in 1965 or 1966 in the summer while I was on a beach on Long Island early on a Sunday morning. Dr. Gruening, a small and physically aged man, came and spoke to a motley assembled group of somewhat frivolous but also concerned vacationers. I cannot remember his words but I know I came away deeply moved, encouraged and proud that I also had graduated from Harvard Medical School. I do know he said what had to be said and what history has confirmed. Perhaps he was not cut in the mold of a conventionally heroic man, but I think that there is a heroism of moral and intellectual courage which he had.

If medicine honors its scientists in part because of their contributions to man and society, appropriate in a profession which is by nature the most human, could not the *Alumni Bulletin* ask those who knew Dr. Gruening to tell us something of him so that he would be better remembered for the principled and wise man he must have been, for his attempt to save the lives of our youth, the health of our society, and its sense of self-respect and conscience? What else ought a physician do?

Robin W. Briehl '54

The Bulletin *thanks Dr. Briehl for illuminating Dr. Gruening's integrity and dedication. We are always willing to print reminiscences about deceased alumni from those who wish to share them with us.*

The editors

Dr. Gruening

Reporter, special article writer, and editor of various newspapers, 1911-20; managing editor, *The Nation,* 1920-23, and editor, 1933-34; founder and editor, *Portland* (Maine) *Evening News,* 1927-32, contributing editor, 1932-37; editor, *New York Evening Post*, 1934; director, Division of Territories and Island Posessions, US Department of the Interior, 1934-39; Governor of Alaska, 1939-53; US Senator from Alaska, 1958-69.

HMAA Candidates

Candidates for president and secretary, as well as candidates for the office of alumni councilor, are listed below. Biographical information and a statement of each candidate's philosophy are included to aid you in voting. Ballots will be sent early in April and must be signed and returned by 12 noon, Friday, May 23, 1975.

Presidential Candidates

Alexander Harvey Bill '39

Seattle, Washington
A.B., Harvard College 1935

1940	Pediatric intern, Babies Hospital of New York
1941-42	Intern and assistant resident, surgical services, Peter Bent Brigham Hospital and Children's Hospital
1943-46	U.S. Army
1946-48	Residency on surgical service, Children's Hospital
1948-	Practice of pediatric surgery, Seattle
1948-	On clinical faculty of University of Washington Medical School
1959-62	Alumni Council, Harvard Medical Alumni Association
1969-	Clinical professor of surgery, UWMS
1969-	Director of surgical services and surgical research, The Children's Orthopaedic Hospital and Medical Center, Seattle

Diplomate: American Board of Surgery; Member: American College of Surgeons, American Surgical Association, American Medical Assocation, Society for Surgery of the Alimentary Tract, American Academy of Pediatrics; American Pediatric Surgical Association, Pacific Association of Pediatric Surgeons (president, 1972), Pacific Coast Surgical Society, Seattle Pediatric and Seattle Surgical Societies.

Statement

Any medical school at this juncture has large problems. Our own is no exception. From a distant geographical perspective, I wonder if the School may be suffering from a problem common to all US medical schools, namely decreased emphasis on teaching. A major proportion of its financial support comes from research grants. This requires that faculty appointments be made to those with known leadership in research, and that their research effort must be ongoing. In other words, Harvard's teachers are being selected, at least in part, for their research abilities. Likewise, their own professional recognition usually comes from their research. It appears to me that a central problem of the School is to find ways to strengthen the teaching program, possibly by providing recognition and recompense specifically for the teaching functions of this outstanding faculty. Supplemental teaching by clinical practitioners might be welcomed by both the practitioners and students.

To aid the administration in examining such problems there are graduates of high caliber and with a broad range of experience, who are intensely loyal to the Medical School. It seems logical for alumni to be used by the School as a resource for analysis and suggestions. Recently such a program has been successfully instituted. This program of alumni involvement in examining the present form and future directions of our School is proceeding well. I feel that it should be strongly encouraged.

John Albert Schilling '41

Seattle, Washington
A.B., Dartmouth College 1937

1941-42	Surgery intern, Roosevelt Hospital, New York City
1942-44	Resident surgeon, Roosevelt Hospital
1944-56	Instructor to assistant professor of surgery, University of Rochester School of Medicine and Dentistry
1944-53	Assistant surgeon, Strong Memorial Hospital and Rochester Municipal Hospital
1953-55	Head, department of surgery, School of Aviation Medicine, Randolph Field, Texas
1956-74	Professor and head, department of surgery, University of Oklahoma School of Medicine
1956-	Affiliate professor, Oklahoma Medical Research Foundation
1969-72	Alumni Council, Harvard Medical Alumni Association
1974-	Professor, department of surgery, University of Washington School of Medicine

Fellow: American College of Surgeons; Member: Committee on Surgical Education in Medical Schools, American College of Surgeons (chairman, 1973); American Board of Surgery (chairman, 1968-69), Society of University Surgeons, New York Academy of Sciences, American Association for the Surgery of Trauma, Society of Surgical Chairmen, American Surgical Association, Society for Surgery of the Alimentary Tract, Western Surgical Association, American Association of Cancer Research, Association of American Medical Colleges; Founding Member: American Trauma Society.

Statement

During the past fifty years, through its wise policies of selection and retention of outstanding faculty and students, Harvard has achieved and maintained a worldwide first position in practically all aspects of medical education, research and scholarly contributions, directed toward patient care. These policies should be continued and actively supported by the alumni. At no time in history has it been more important to maintain and extend the freedom, the integrity and the contributions of private universities and their graduate schools.

Because the tax dollar is now involved in almost all aspects of medical education, research and patient care, there must be a greater prospective input into the political processes in all of the above areas in the formulation of wise legislation and its implementing regulations. Without such input, legislation and implementating regulations will evolve anyway but with predictable problems. Alumni, particularly those in full-time practice, through their personal association with the individual members of state and federal delegations, are in an especially strong and unique position to participate in such efforts.

By moving in this direction, while continuing to acitvely support the Medical School in its basic functions of selection and retention of students and faculty, teaching, training, and research, alumni could add a new dimension to the Medical School as a potent resource in the development and evolution of legislation in the decades that lie immediately ahead.

Secretarial Candidates

John Putnam Merrill '42

Weston, Massachusetts
A.B., Harvard College 1938

1942-43	Medical house officer, Peter Bent Brigham Hospital
1943-47	Medical officer, U.S. Army Air Force
1947-	Assistant resident to physician, PBBH
1948-49	Milton Fellow in medicine, Harvard Medical School
1949-	Research fellow to professor of medicine, HMS
1952-	Director, Cardiorenal Service, PBBH
1953-54	Graduate student, department of biochemistry, Cambridge University England
	Fellow, Downing College, Cambridge University, England
1954-56	Editor, *Harvard Medical Alumni Bulletin*
1956-57	Graduate student, department of chimie microbienne, Institut Pasteur, Paris
1963-66	Alumni Council, Harvard Medical Alumni Association
1966-	Co-chairman, Committee on Resources, HMS

Diplomate: American Board of Internal Medicine; Fellow: American College of Physicians; Member: Boylston Medical Society, Aesculapian Club (secretary 1950-53; president, 1964-65); American Medical Association, American Society of Clinical Investigation (president, 1962-63), Association of American Physicians, International Society of Nephrology (president, 1966-69), Academy of Arts and Sciences, National consultant to the Surgeon General, U.S. Air Force (1961), National Advisory Councils: Regional Medical Program (1971-74); NIH (NIAMD) (1974-).

Statement

As a result of participation in HMS' Committee on Resources, I have been impressed with the indications of strengthened alumni interest and support. The role of increased alumni financial contribution in an era of dwindling federal spending has been repeatedly and deservedly stressed. This is a critical function of the alumni, not only through personal contributions but through identifying patients who might be in a position to help. Equally important is the potential for actively involving alumni in an advisory capacity in such areas as the admissions policy (see the March/April 1974 *Bulletin*), the curriculum, and the relative roles of teaching and research. I believe that the admissions policy needs clarification, and steps have already been taken in this direction through the work of the Alumni Survey Committee. Faculty debates and differences of opinion with regard to curriculum change reflect a need for input from those familiar with HMS who can evaluate their own training from the perspective of some years of practice. The evaluation of the PSRO mechanism, of national health insurance, of pending bills to insure distribution of medical care and the other aspects of medical economics also requires something more than in-house analysis. Here alumni experience could also be invaluable; I have been distressed by how little most HMS students know about practical medical economics.

HMS is now and should remain a center of excellence, of teaching, and of research; an institution that produces teachers of teachers, as well as expert practitioners. Teaching and research, however, are not necessarily limited to the biomedical area, but should include patient care and policy. Selected alumni committees may be of help in these areas too, where learning has been tempered by experience. The involvement of students and student committees in faculty groups is now the rule. I believe where possible, representative alumni not immediately involved in Medical School functions might also broaden such committees.

John Gordon Scannell '40

Belmont, Massachusetts
A.B., Harvard College 1936

1940-41	Surgical house officer, Massachusetts General Hospital
1942-46	Assistant surgical resident to resident, MGH
1944-	Assistant in surgery to clinical professor of surgery, Harvard Medical School
1946-	Assistant in surgery to visiting surgeon, MGH
1949-52	Alumni Council, Harvard Medical Alumni Association

Diplomate: American Board of Surgery; Board of Thoracic Surgery; Member: Massachusetts Medical Society, American Medical Association, New England Surgical Society (president, 1973); American Surgical Association, American Association for Thoracic Surgery (council, 1974-), American College of Surgeons, Society of University Surgeons, Aesculapian Club (president, 1967), Surgeon S.S. HOPE, Republic of Guinea (1964), American Board of Thoracic Surgery (1966-1971), Editorial Board, *Harvard Medical Alumni Bulletin* (1954-).

Statement

As a former member of the Alumni Council way back when (1949), I have been tremendously impressed by its development as an active link between the Medical School as we knew it and the School today. We are in an age of almost overwhelming complexity, where admission policies must meet the stresses of an almost unreal competitive atmosphere among premedical undergraduates; educational costs are out of sight; and curricular changes baffle faculty, students, and alumni alike. Now there is a need for the alumni to make their opinions known, to restate some of their values and offer constructive criticism, not just give or withhold financial aid, as the case may be, or write an occasional letter to the editor. If there is one thing Harvard needs, it is to avoid complacency, and an informed and vocal alumni body is a step towards that end. At a time when medicine is one of the "health professions" or part of the "health industry," the voice of the "doctor" should be heard in the land. Since the Harvard Medical alumni represent a wide spectrum in the medical world, and I believe, are generally held in high regard, even outside New England, their Alumni Association should be one of those voices.

Council Candidates

Edward Congdon Atwater '55

Rochester, New York
A.B., University of Rochester 1950

1955-57	House officer, Strong Memorial Hospital
1957-59	USPHS trainee in arthritis and metabolic diseases
1959-60	Chief resident in medicine, Strong Memorial Hospital
1960-69	Instructor to associate professor of medicine
1970-71	Macy Fellow in history of medicine, Johns Hopkins Medical School
1971-	Associate professor of medicine and assistant professor of the history of medicine

Member: American Rheumatism Association, American Association for the History of Medicine, County and State Medical Societies, Medical School Admissions Committee; Trustee: Rochester Academy of Medicine.

Statement

Alumnus Oliver Wendell Holmes noted "that medicine, professedly founded on observation, is as sensitive to outside influences, political, religious, philosophical, imaginative as is the barometer to the changes of atmospheric density." One example of this sensitivity is the increasing popularity of the primary physician role and the diminishing attractiveness of laboratory investigation. Two things which do not change, however, are that 1) good medical education has always required financial subsidy and that 2) increasing sophistication of medical technology and the consequent development of specialization isolates practitioners from the teacher's role and deprives them of the best means of continuing their own education. Alumni may help with both these problems. Though annual contributions are important, the individual and congregate reputation for excellence of Harvard alumni is equally important in attracting financial support. Harvard's long success in accumulating endowment is proof enough of this. Knowledge of and participation in school activities, even if vicarious, can be a significant reminder to alumni of the standards expected at Harvard. Continued contact with the School should encourage each of us to continue our education and maintain the relationships between practitioners, teachers, generalists, and specialists which are critical to the integrity of the profession.

Claire Martin Stiles '56

Downey, California
A.B., Wellesley College 1952

1960	Pediatric intern, Children's Hospital
1962	Anesthesia resident, Massachusetts General Hospital
1962-69	Anesthesiologist to chief of medicine, Rancho Los Amigos Hospital Downey, California
1965-69	Clinical instructor, University of California College of Medicine
1969-	Chief, Department of Anesthesia, Rancho Los Amigos Hospital; and Assistant professor, University of Southern California School of Medicine

Diplomate: American Board of Anesthesiology; American College of Anesthesiology; Member: Los Angeles County Medical Association, California Medical Association, American Medical Association, California Society of Anesthesiologists, American Society of Anesthesiologists, International Anesthesia Research Society.

Statement

Harvard must maintain leadership as the outstanding medical school in the nation. It must continue to graduate men and women who will go on to positions of leadership in all fields of medical science — academic, clinical, administrative, and research.

Harvard alumni must actively participate in recruiting the most promising premedical students. This can best be accomplished by stimulating interest in Harvard and by providing prospective students with current information concerning the curriculum and hospital facilities. It should be the responsibility of the Council to make such background material readily available to the alumni. Alumni can do much to increase financial aid to students through no-interest loans. We should act, individually and collectively, to insure that no outstanding student rejects admission to Harvard in favor of a state-supported medical school because of financial problems.

Times are changing and Harvard must change with them. Alumni fondly remember the Medical School as it was when we attended. We must be kept informed of the reasons for new policies and procedures so that we can be equipped to maintain support of our School despite the ever-changing appearances. Changes are essential for survival; they can and must be made without compromising leadership in excellence.

Patricia Challender Come '72

Columbia, Maryland
A.B., Wellesley College 1968

1972-73 Medical intern, Beth Israel Hospital
1973-74 Medical junior resident, Beth Israel Hospital
1974-75 Research fellow, American Heart Association (Maryland affiliate)
1974-76 Fellow in cardiovascular medicine, Johns Hopkins Hospital, Baltimore, Maryland

Member: Alpha, Omega, Alpha

Statement

Harvard Medical School alumni are now in a wide variety of positions, most of them, no doubt, requiring technical skills, fund of knowledge, ability to reason, emotional maturity, and curiosity that HMS has and should continue to attempt to foster in its students. Alumni can contribute to undergraduate education not only by providing financial support but also by serving as important role models for students seeking widely divergent careers and by offering constructive criticisms and suggestions for better medical education.

As a recent HMS graduate and medical intern and resident at Beth Israel Hospital, I have had the opportunity to observe Harvard's new pre-clinical and clinical curricula and their effects on the development of students' medical knowledge, judgment, and ability to interact with patients and other medical personnel. In addition, as a fellow now involved with house staff and student teaching at Johns Hopkins Hospital, I have the opportunity to see the influence on students of a somewhat different educational system.

I would encourage HMS to remain a school dedicated to attracting a well-balanced student body, diversified with respect to both medical and nonmedical interests, ultimate goals, sex, racial and ethnic origins, and socio-economic backgrounds. Whatever one's final goal, I believe that a firm foundation in the basic sciences and medical disciplines should remain the prime area of emphasis. The development of this firm background, including the ability to apply pathophysiological thinking adeptly to the understanding of patients and their diseases, should not be sacrificed for early specialization at the medical student or perhaps even the intern level. The option should remain open, however, for special training for those students who have shown extraordinary mastery of basic skills, pathophysiology, and doctor-patient interaction.

Hopefully HMS will decide to retain part-time as well as full-time faculty. My training thus far has made me realize how difficult it must be to practice medicine full time, and yet still keep up to date with ongoing medical knowledge, in order to remain proficient in patient care. The part-time staff of Harvard's hospitals includes many who somehow have been able to do that almost impossible task, and they serve as an indispensable role model for the rest of us.

The ultimate intellectual development of physicians derives predominantly from their own industry, in concert with their innate intellectual abilities, but a medical school can enhance those qualities by proper encouragement at all levels of training.

Douglas George Kelling, Jr. '72

Durham, North Carolina
A.B., Harvard College 1968

1972-73 Medical intern, Duke University Medical Center
1973-75 Medical resident, DUMC
1975-76 Chief medical resident and associate in medicine, DUMC

Associate: American College of Physicians

Statement

The members of the Alumni Association have many important responsiblities to Harvard Medical School. These include donating money for salaries, scholarships, and building funds; giving time to locate talented people to train and work at the Medical School; and providing information and opinions to faculty and students which can aid them in making decisions regarding Harvard's future course.

This course, I believe, is largely determined by the Medical School's admission policy, curriculum, and faculty. I would like to see the continuation of a liberal admission policy, by which an effort is made to accept women, minorities, and those with unique talents and interests. I would like to see a curriculum which not only provides a strong foundation in the basic sciences and clinical medicine, but also allows one to pursue special interests in any particular area of medicine. Finally, I would like to see a faculty balanced between individuals engaged in research and in clinical medicine. Ideally, they should all be full time; however, if sufficient funds were not available to accomplish this goal, then I would favor having some part-time faculty.

John Paul Dixon '62

Brattleboro, Vermont
A.B., Yale University 1952

1962-65	Surgical intern to junior resident, Peter Bent Brigham Hospital
1965-66	Surgical fellowship, Lahey Clinic Foundation
1966-68	Senior surgical resident and chief resident in surgery, Harvard Surgical Service, Boston City Hospital
1968-	Staff surgeon, Brattleboro Memorial Hospital

Statement

I am a member of a three-man surgical group practicing in a small community hospital in the rural state of Vermont. The hospital staff is young and all have had specialty training at university centers. It seems to me that this reflects a major trend in today's practice of medicine. The community doctor needs to communicate with the large teaching center: about what is going on out here, about how we can be trained to cope with it, and finally about how our education can be continued once we are here.

Americo Alfred Savastano '32

Providence, Rhode Island
B.Sc., University of Rhode Island 1928

1932-33	Rotating internship, Mountainside Hospital, Montclair, New Jersey
1933-35	Orthopedic residency, New York Rehabilitation Hospital
1937-45	Instructor in orthopedic surgery, New York Polyclinic Medical School and Hospital
1940-41	Orthopedic residency, Long Island College Hospital
1968	President, Rhode Island Hospital Staff Association Surgeon-in-chief, department of orthopedic surgery and fractures, Rhode Island Hospital
1973-	Clinical professor of orthopedic surgery, Brown University Medical School

Diplomate: American Board of Orthopedic Surgeons; Fellow: American Fracture Association, International College of Surgeons (active), American Medical Association, American College of Sports Medicine; Member: American Academy of Orthopedic Surgeons (chairman, region I committee), Boston Orthopedic Club (president, 1971-72), Rhode Island Medical Society (vice president, 1973-74), New England Orthopedic Society, Rhode Island Orthopedic Society (past president), President's Council on Physical Fitness.

Statement

To me, the profession of medicine is one of the most important fields of endeavor. The Harvard Medical School for many years has been a leader in turning out a diversity of well-trained graduates, eminently qualified in the delivery of quality health care, in the academic teaching of medicine and in experimental research. Every effort must be made to maintain this position. At the same time, however, the full and complete exploration of new ideas must not be ignored. The future of the Harvard Medical School is to a great degree dependent upon two major factors: (1) the ability of the admissions committee to select eminently qualified students; and (2) maintenance of an outstanding faculty which must not only have expertise in teaching but must also possess the ability to inspire and give guidance to the students. These two ingredients are vital if the Medical School is to maintain its position of eminence. It is my considered opinion that one of the important functions of the Alumni Council is to maintain a three-way communication between the school, the students and the alumni.

RESERVE THESE DATES

May 29 . . . . Scientific Symposium

May 30 . . . . Harvard Medical Alumni Day

May 29-June 1 . . . . Class Reunions

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Four American Centuries: July 6-11

Faculty Director: Donald H. Fleming, Jonathan Trumbull Professor of American History; Director of the Charles Warren Center for Studies in American History

The Crisis of Values in Science & Medicine Historical and Social Roots: July 13-18

Faculty Director: Everett I. Mendelsohn, Professor of the History of Science; Chairman of the Department

Soviet Russia: Past, Present & Future: July 20-25

Faculty Director: Adam B. Ulam, Professor of Government, Director of the Russian Research Center

For further information please write to:

HARVARD ALUMNI COLLEGE
Wadsworth House
Cambridge, Massachusetts 02138
(617) 495-5731